METALSMITH

JEWELRY • DESIGN • METAL ARTS

SUMMER 2004

volume 24 number 3
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Taking Hold
The Price of Gold
Forest and the Trees

June 3 - 6
SOFA New York

June 11 - July 6
Vessels
small works

July 9 - August 3
Noam Elyashiv
jewelry

Noam Elyashiv, *Neckpiece*, 2004, silver, iron, enamel.

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SUMMER 2004
METALSMITH VOL 24 NO 3

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Manufactured by E.R. Butler & Co., New York

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Photo: Tim Thayer

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FROM THE EDITOR

SUZANNE RAMLJAK

Summer is the season for easy living. As days grow longer and warmer, we shed worries and clothes to revel in the realm of the senses. Summer reading or "beach reading" is accordingly escapist—romance novels, racy biographies, or mystery capers. While this summer issue of *Metalsmith* does contain some breezy prose, it is not likely to lull you into repose, as much of the text demands serious deliberation.

The article that dominates this issue, literally and figuratively, is "The Price of Gold." Susan Kingsley's essay is a compelling page-turner, albeit more in the genre of horror or suspense. The story's protagonist is gold—a charismatic substance associated with everything from greed to godliness. Like an evil temptress, gold has lured humankind onto the path of destruction; its undeniable beauty and mystique come with great social, ecological, and political costs. It is a sobering tale, one that even Kingsley wishes "could have a happy ending."

In the course of her account, we learn how modern methods of gold extraction result in ruined wilderness, contaminated watersheds, and endangered economies and populations. We also read that over 85% of the gold produced annually is made into jewelry rather than used for industrial purposes. Beneath the gleam of gold adornment lies human and environmental woe. Even I become implicated as I wear a gold band while reading that "one gold ring generates, on average, 35 tons of waste rock." Kingsley's essay performs the difficult but necessary task of forcing us—producers and consumers alike—to confront the hidden consequences of our actions.

Other articles also require keen critical awareness on the reader's behalf, although without the same moral imperative. From Bruce Metcalf's Opinion piece on a jewelry avant-garde to Toni Greenbaum's biting review of *Art Jewelry Today*, to a critique of Greenbaum's own curatorial efforts in the "Jewelry Beyond Jewelry" exhibition. While not very relaxing, the rigorous writing in this issue still proves refreshing, like a cold shower after a long hot day on the beach....

SR

METALSMITH

a publication of SNAG,
the organization for jewelers,
designers and metalsmiths

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Metalsmith (ISSN 0270-1146) is published in January, March, May, August, and October by SNAG, a not-for-profit organization, 4513 Lincoln Ave, #213, Lisle, IL 60532-1290.
www.snagmetalsmith.org

Annual Subscription
to *Metalsmith* (5 issues): $29 North America, $41 foreign.
SNAG one-year membership rates include a subscription to *Metalsmith*: $69 North America, $85 foreign.
Students: $45 North America, $58 foreign.
Multiyear subscriptions and memberships are also available at a discount.

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Claims for missing issues are accepted only if received within three months.

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Metalsmith is indexed in *Art Index*.
The full text of *Metalsmith* is available in the electronic versions of *Art Index*. On-line (computer) indexing is available through Wilsonline, 950 University Avenue, Bronx, NY 10452

National Newsstand Distribution
CMG
250 West 55th Street, New York, NY 10019

Contents
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Send address changes to:
SNAG/Metalsmith Business Office
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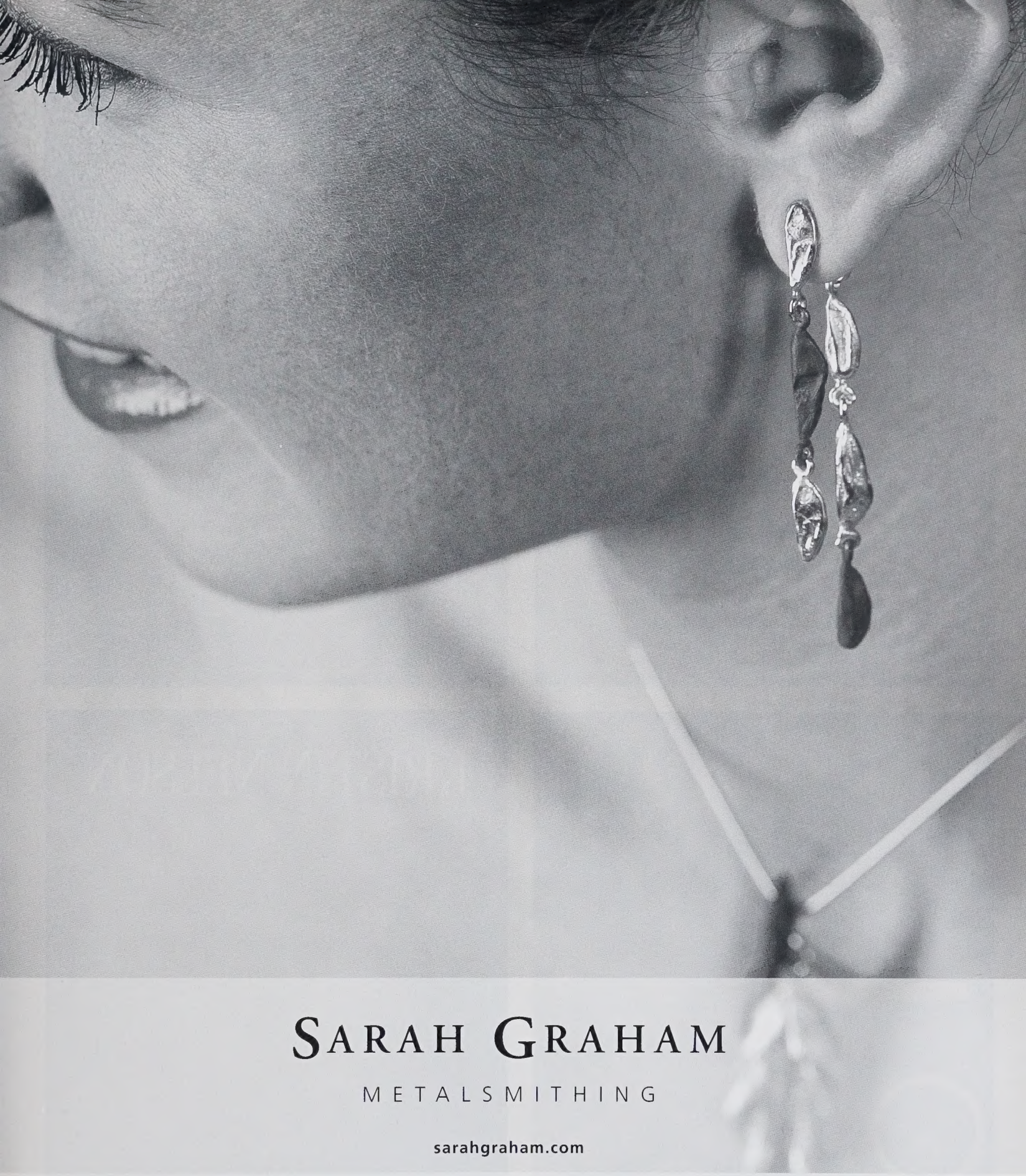
Lisle, Illinois 60532-1290



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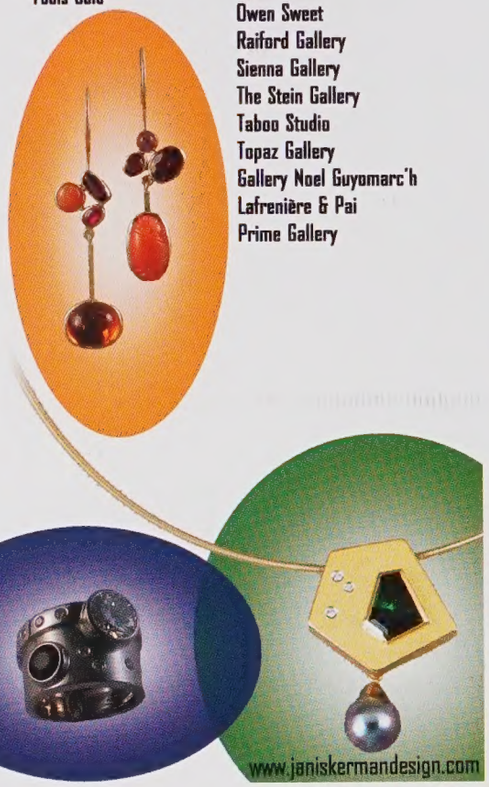

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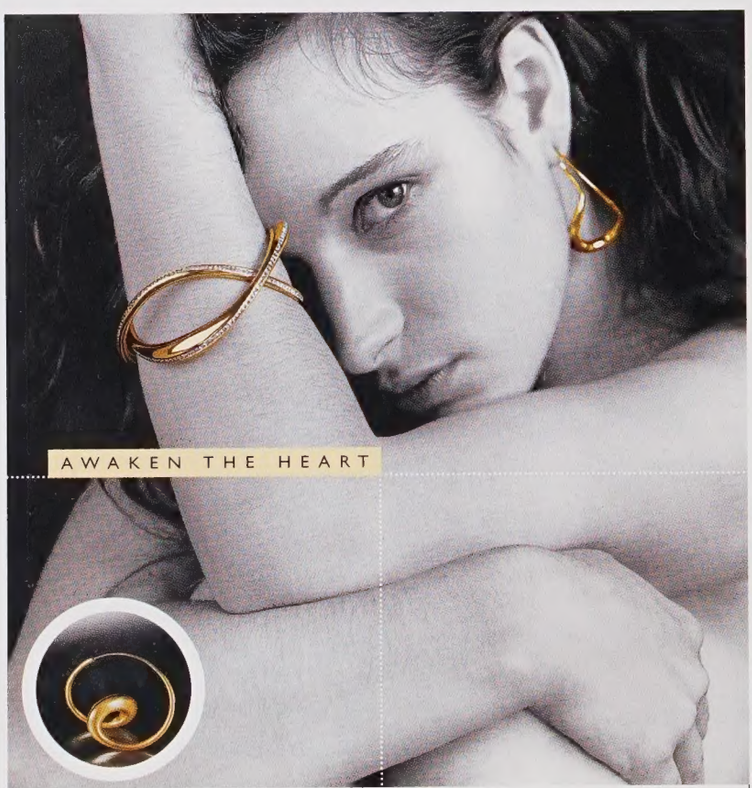

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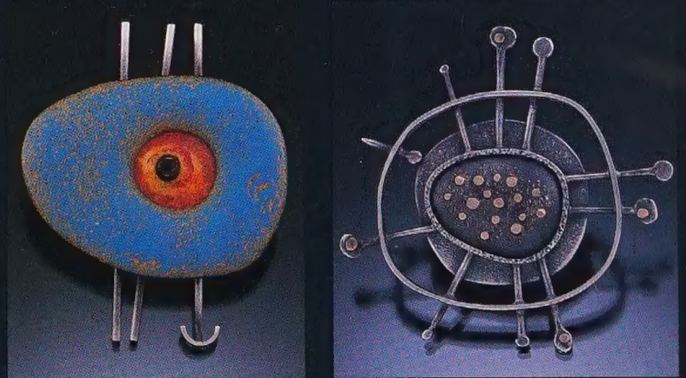

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The Masters: "Starry Night" brooch © by Eric Lai

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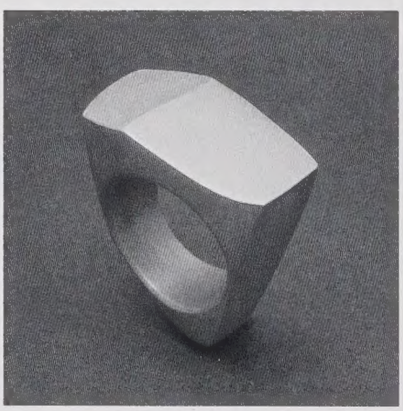

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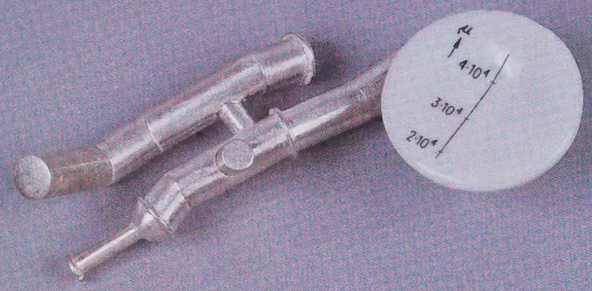

Katja Prins, brooch, silver, porcelain

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Shin Hyae Rim. Brooch, 2003
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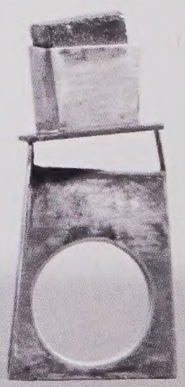

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Michael Glancy *Golden Projection (detail)*, 2003
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BOOKS

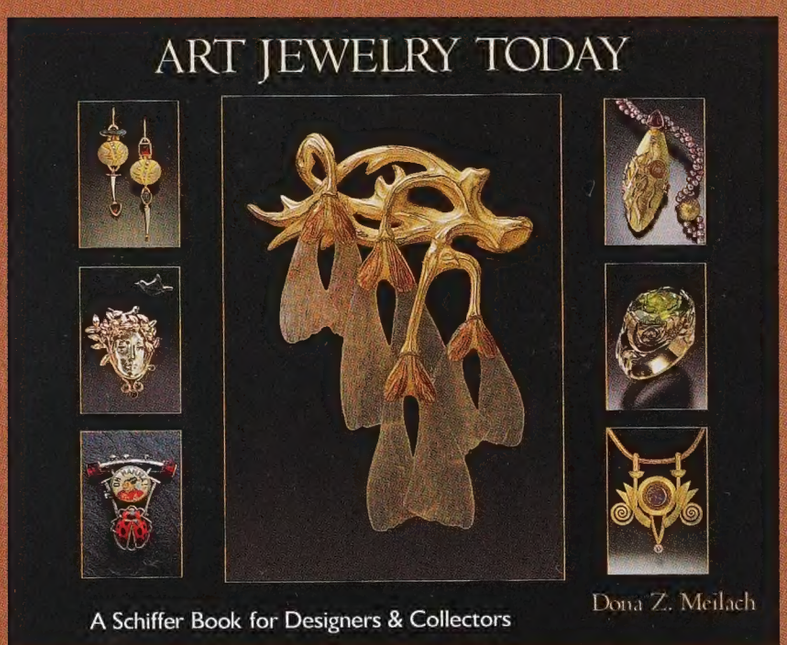
Art Jewelry Today by Dona Z. Meilach

Schiffer Publishing, Atglen, Pennsylvania, 2003

by Toni Greenbaum

Art Jewelry Today by Dona Meilach is an ambitious, sumptuously illustrated book. It is logically organized, with the most successful chapters covering materials and techniques. The book functions best, therefore, as a handmade jewelry primer. Nonetheless, the author attempts to do much more, and as an overview of the current state of this thirty-year movement, which the title, foreword, and lavish presentation imply, it fails.

The very term "art jewelry" has been bandied about so much within the past few decades that one must endeavor to apply the designation correctly, and, when



attempting a book of this scope, fairly comprehensively. It would be impossible to include every artist jeweler working at this moment in time; therefore, the author should have chosen more carefully or qualified her objectives. It would have been preferable to narrow the boundaries and cover only one aspect of the movement, for example, American jewelers, noble materials, jewelry inspired by nature, or large-scale works. Although Meilach states that jewelers from 14 countries are represented, the omissions are disturbing. She ignores many of the major Europeans, such as David Watkins, Wendy Ramshaw, Gijs Bakker, Manfred Bischoff, Esther Knobel, Peter Skubic, Ramón Puig Cuyas, and Giampaolo Babetto, in favor of examples that are often puzzling.

Apparently, the jewelers were selected from entrants and suggestions provided by certain professionals in the craft-as-art field. Meilach, however, offers a biased view. Too many of the pieces presented are over-decorated; and she all but ignores works that are pure or minimal. Donald Friedlich's subtle, structured pins and Svatopluk Kasalý's elegantly graceful neckpieces are exceptions. Galleries that show a broad range of contemporary jewelry, including the restrained approach, such as Jeweler's Werk, Charon Kransen, Sienna, Ra, Marzee, V&V, Spektrum, and Biró, don't appear to have been consulted.

Clearly, the author features some great jewelers, several of whom are stalwarts of the movement, such as Arline Fisch, Marjorie Schick, Nancy Worden, David C. Freda, Barbara Stutman, Harriete Estel Berman, John Iversen, Keith Lewis, and Charles Lewton-Brain. But, overall, the quality of her analysis is so uneven and the selections so random that her overview is misleading. Meilach divides her chapters into suitable stylistic approaches. But how can one show alternative materials, for example, without mentioning Thomas Gentille, Ruudt Peters, Fritz Maierhofer, Joe Wood, or Pavel Opočenský; geometry without Anton Cepka, Eva Eisler, or Michael Becker; enamels without Jamie Bennett, Maria Phillips, or Kathleen Browne; narrative without Bruce Metcalf, Daniel Jocz, or Christina Smith; found objects without Robert Ebendorf, Kiff Slemmons, or Laurie Hall; and new approaches without Bettina Speckner or Karl Fritsch? "Empirical" metalsmithing is a category Meilach totally disregards, and in so doing ignores three of art jewelry's strongest practitioners: Tone Vigeland, Myra Mimlitsch-Gray, and Bettina Dittlmann.

The book gives little sense of the movement's roots or nascence. There is only a cursory allusion to the vital cross-fertilization between Europe, Asia and America, not to mention specific influences by instructors at the important college metalsmithing programs, or the early pioneers. Meilach sums up this entire phenomenon by writing, "Arline Fisch....explored jewelry as body sculpture. Other teachers picked up on the trend; Albert Paley and Marjory [sic] Schick influenced this emergence that jumped the ocean and was caught by craftspeople in Post-war European countries." There is a necklace by Juan Carlo Caballero-Perez that looks as though it could have been made by Albert Paley in the early 1970s. Who is Caballero-Perez, and what is his connection to Paley, if any? Meilach offers little biographical information. It would have helped immeasurably to know where the

jewelers live, how old they are, where, and with whom, they may have studied, if, and where, they have exhibited, and if they have received any awards or accolades. She also fails to date the pieces shown, providing no basis to determine when a work was made within an individual artist's career.

Although Meilach occasionally offers some spotty background orientation, such as in the chapter on glass, her historical facts are not only incomplete but too often devolve into silly commentary, such as "Designs based on the linear forms of Hector Guimard of France and Rennie MacIntosh [sic] of Scotland, have been reinvented in jewelry and are being sold in museum stores today." Furthermore, her research is sloppy and inadequate. In the chapter on found and recycled objects, she writes: "Using found objects for body adornment may have gotten its start during the Hippie days of the 1970s....Whoever and wherever it began is not as important as where it has led...." Apparently, the author is unaware of the Victorian use of hummingbird heads for hatpins or Dadaist Meret Oppenheim's earrings made from thermometers. Granted, it would be unreasonable to expect the author to be well versed in such specific (and, perhaps, esoteric) historical data, but her cavalier attitude is a cop-out.

Meilach illustrates almost every chapter with photographs of ethnic peoples, inexplicably, mostly New Guinean tribesmen, however, she fails to give any but the most puerile reasons why they were chosen or how they relate to the contemporary jewelers discussed. Dancers from Papua, New Guinea, for example, shown wearing headdresses and neckpieces made from feathers, beads and shells, open the chapter on found and recycled objects. Meilach advises the reader: "Study the photo carefully to observe how different types of shells, feathers, leaves, nuts and vines become jewelry." She goes on to point out how "primitive adornments" inspire traditional jewelry and how department store jewelry counters display feather shaped pins, shell shaped beads, and braided bracelets of silver and gold, while fashion advertisements encourage one to wear layers of beaded necklaces. Artist jewelry is belittled placed within this context. By the same token, the chapter on glass opens with Masai girls wearing traditional collars of tiny glass trade beads, but nowhere in the text does the author show how either the form of the individual pieces or their overall effect has inspired any contemporary maker in the way, for example, the posthumous discovery of archival magazine photos of Watusi dancers in full regalia, found amongst modernist jeweler Art Smith's possessions, proved enlightening. Visual associations to generalized tribal motifs are somewhat apparent, but specific comparisons, within the text, such as with Cynthia Toops's polymer clay necklaces or Kandioura Coulibaly's clay bead necklace, are rare. For the most part, relationships are left to the reader's imagination.

Meilach minimizes the serious commitment and artistic intent of the jewelers. She writes: "The artists who create one-of-a-kind pieces might be your neighbor working out of a garage or a small room. They are your friends, your children's friends, for jewelry making is a hobby for many, a business for others." This passage reads like something out of a 1950s how-to manual. At a juncture where artist jewelers are still struggling for credibility, this comment is sadly misleading. There is, furthermore, no mention of the countless museum exhibitions, both in the United States and abroad, which have included jewelry by artists and recognize the movement as one worthy of serious consideration.

The jacket flap states that Dona Meilach has written more than 85 books on topics including macramé, batik and tie-die, fireplace accessories and creating modern furniture. Her *Ethnic Jewelry: Design and Inspiration for Collectors and Craftsmen* (1978) is in my library. It is of its time, and she has a real affinity for this subject. The book is an asset to any jewelry enthusiast. The problem with *Art Jewelry Today* is that Meilach attempts too much with too little insight. An up-to-date account of this decades-old movement is sorely needed. But *Art Jewelry Today* lacks curatorial focus, qualitative judgment, broader context, and a sense of cause and effect. The author seems to intend a sweeping survey, but because the content is so uneven and its endorsements so indiscriminate the book does little to develop connoisseurship. The reader is given no guidelines to judge the best from the banal, the art from the craft, and the well-conceived from the excessive.

Over the years, there have been several excellent books written about "art jewelry." Meilach references a few in her bibliography. This is part of the problem with her book. There is no need to dumb down the topic, since a roster of benchmark literature already exists. The flap states: "In the twenty-first century, craftspeople are striving to have their work considered fine art. This book will convince doubters that today's art jeweler is creating serious sculpture...." An argument for art status, however, must be made within the established vocabulary of the discipline. There still exists a raging polemic about what constitutes "art jewelry." Those committed to the field are working exhaustively towards establishing an art jewelry canon. In presenting an inadequate and distorted view of the movement, *Art Jewelry Today* undermines their efforts. ⧗

Toni Greenbaum, a New York City-based art historian specializing in jewelry and metalwork, is the author of *Messengers of Modernism: American Studio Jewelry 1940-1960*, and numerous essays on the subject of art jewelry.

Is There a Jewelry Avant-garde?

by Bruce Metcalf

Curator Glenn Adamson has been thinking about the idea of a craft avant-garde for some time, specifically in relation to furniture. In his article "The Next Moment in Studio Furniture," Adamson suggested that perhaps the field has gotten a bit too stodgy and tradition-bound, and that it needs to generate new ideas. He called for "the presence of a true avant-garde" in furniture.[1] Which got me to thinking... is there a jewelry avant-garde?

Jana Brevick
The Everchanging Ring, 2002-03
24k gold
1 1/16 x 15/16 x 3/16"
This ring has no fixed form. Each year, the purchaser is entitled to return the ring to Brevick, and she will recast the gold into a new ring. In offering to remake the ring annually, Brevick draws from the strategies of conceptual art, while referring to the mutability of gold and the tradition of recycling precious metal objects.
Photo: Doug Yaple

I have to admit that I'm more cautious than Adamson. There was a time when I would have embraced the notion of a craft avant-garde enthusiastically: Hell, sweep away the old and bring in the new! But now I'm somehow reluctant. The whole idea of an "avant-garde" is loaded with baggage. In fact, I don't even know if such a thing is possible anymore.

The avant-garde, also called the vanguard, originally signified a light, fast-moving military force that led the heavy infantry and artillery regiments. The avant-garde scouted territory, estimated the size and composition of enemy troops, and absorbed the shock of initial contact. Where the avant-garde went, the main force of the army followed, and full-scale battle ensued. The term was adopted by the art world to denote the most experimental artists, those who suffer the most resistance from the public, and whom more conventional artists must someday follow. The violent metaphor is intentional: it supposes that the world can be accurately divided into friends and enemies of the new, and that art is militant in the ongoing cultural war.

The term "avant-garde" is freighted with baggage from its source in military language. Consider the implications of applying the idea of an armed vanguard to the arts: The term assumes a condition in which a smaller group leads the way for a larger one, which in turn presupposes an overall unity to a field, whether it's painting, dance, literature, or crafts. It assumes that a field moves forward all at once, all in the same direction, just like an army. It implies resistance and struggle, and eventual defeat to a countervailing idea. And it suggests a "rear-guard," a reactionary group that desperately hangs on to an obsolete idea. A complex narrative of winners and losers, and organized victory over an outmoded idea is compressed into a single phrase.

I suspect that the term "avant-garde" was applied to visual art at the end of the nineteenth century, asserting the inevitable progress of modern art, and the backwardness of all those who stood in its way. In many ways the early Modernists tried to change the world with a revolutionary zeal not unlike that of Marx and Lenin. (Not surprisingly, Modernism in Europe was closely liked to Socialism.) The link forged between the avant-garde and revolution has never been broken, with certain consequences. Both are forever associated with the idea that the past is hopelessly corrupt, and must be relegated to the dustbin of history. It follows that the idea of the avant-garde places a profound emphasis on the present moment, and contains an undertone of revulsion for anything traditional. This attitude of combined enthusiasm and disgust is a hallmark of the modern avant-gardist.

My point is this: approving references to an avant-garde are never neutral. Not only is there advocacy for something presumed to be new and better, but a whole series of hidden assumptions exist. The field in question is presumed to be unified, the new idea is presumed to become dominant after a period of struggle, and some old ideas are presumed to be better off dead and buried. That's why I'm cautious about any declaration that a new avant-garde has arrived. I have to ask: is this model of rupture and displacement a good fit for craft?

It's useful to recall that modern craft had an avant-garde moment between 1940 and 1955, when Modernist ideals and styles were incorporated into all the craft mediums. At that time, new ideas being introduced into craft were radical, changing all aspects of craft permanently, and forcing the abandonment of the

outmoded arts and crafts style.[2] Could the same kind of transformation happen to craft in the twentieth-first century? Anything's possible, but the present condition of the craft disciplines, including jewelry, argue against it. Fragmentation is the order of the day; the unity that a successful avant-garde presupposes has disappeared. (The same is true of all the visual arts.) Each craft field can no longer be compared to an army, marching to one cadence toward the field of battle. Where there was once a common purpose, there is now multiplicity.

Even in studio jewelry, which is a comparatively small field, a number of discrete factions have developed and matured. The broadest division is between production jewelers, who must make a living from their work, and academic jewelers, who are expected to experiment without considering the marketplace. The frictions between these two camps are well known. In fact, the wide variety of attitudes and aesthetics present in jewelry today is probably an indicator of the field's good health.

What we have here is pluralism. This is the post-modern condition, in which ideas jostle and compete, but no single discourse dominates. Most craftspeople are comfortable with this condition, for it leaves space for both variation and sameness. Everybody is invited to explore a vast array of options. Choices, when made, are usually made freely. One can follow, or one can explore, and the surrounding community of jewelers does not explode into angry denunciations. For the most part, it's a genial and accepting culture.

Is this a fertile field for the militancy of an avant-garde? I think not. Conditions are not ripe for revolution. However, jewelry is fully capable of evolution. The last jewelry movement to be declared a revolutionary avant-garde was the "New Jewelry" that emerged from England, Holland, and Germany in the early 1980s. Anybody who lived through that period remembers the wild claims that were made in its name. One would have thought the Revolution itself was approaching. But instead of transforming its field, as Modernism had irrevocably changed crafts, the New Jewelry expanded the menu of available options. The movement proved that personal ornament can serve as an effective vehicle for certain meanings, and that good jewelry does not always have to be worn. It was as if the New Jewelry offered a few new genes to the pool, rather than creating a new mutant species. It contributed to the change in the field; it was progressive.

Progressive change is perfectly suited for a pluralistic environment. Amid the multiplicity of the arts today, progress can occur simultaneously, in very different ways, in many different locations. This kind of change is evolutionary, not revolutionary. Progressive change does not necessarily posit a militant rupture from the past. Instead, it proposes more possibilities, more options.

Some people may think any progressive tendency constitutes an avant-garde, but I disagree. In my opinion, a true avant-garde is necessarily revolutionary and necessarily effective. And if effectiveness is necessary, then nobody can ever know whether or not a movement is truly avant-garde at its beginning. The influence a movement exerts can only be measured long after it first appears.

Perhaps Glenn Adamson would be content with calling his "next moment" progressive instead of avant-garde, but I must assume that he, as an experienced historian, is aware of the nuances of the word he chose. My impression is that Adamson hopes to see the attitudes of conceptual art—willingness to do research, openness to new subject matter, acknowledgement of theory—applied to the making of real furniture. For Adamson, avant-garde work is identified by the thoughtful and focused employment of the full range of concerns native to craft—even functionality and domesticity. He sees this new work as the breakthrough to the "next moment" in studio furniture, challenging the presuppositions of everything that has come before.

There are a number of jewelers whom I believe are already creating the "next moment" in jewelry, exactly as Adamson hopes. They are mostly under 40; they appear to be very familiar with conceptual art strategies. Their work doesn't look like conceptual art, however, it's usually recognizable as jewelry. Among them are Jana Brevick, Lola Brooks, Susan Myers, Mary Preston, Tina Rath, and Anika Smulovitz.

Are they jewelry's avant-garde, or are they progressives? While I don't know any of these women personally, they don't seem like a crew of wild-eyed revolutionaries to me. While skeptical, they also seem invested in the craft and the community, which is not a good condition for revolution. There seems to be too much respect for the craft, too much engagement in history, too much interest in beauty, too much affection for American popular culture. These women are the face of jewelry's future, and they are builders, not destroyers. ⧗

Bruce Metcalf is a jeweler and occasional writer who lives in Philadelphia.

1 All quotations from Glenn Adamson, "The Next Moment in Studio Furniture," *Tradition in Contemporary Furniture* (Free Union, VA: The Furniture Society, 2001).

2 For a brief account of Modernism's impact on studio jewelry, see the author's article "When Production had a Good Name," *Metalsmith Exhibition-in-Print*, Vol. 17 No. 3, 1997. For a more global view, see Martin Eidelberg, ed. *Design 1935-1965: What Modern Was* (New York: Abrams, 1991).

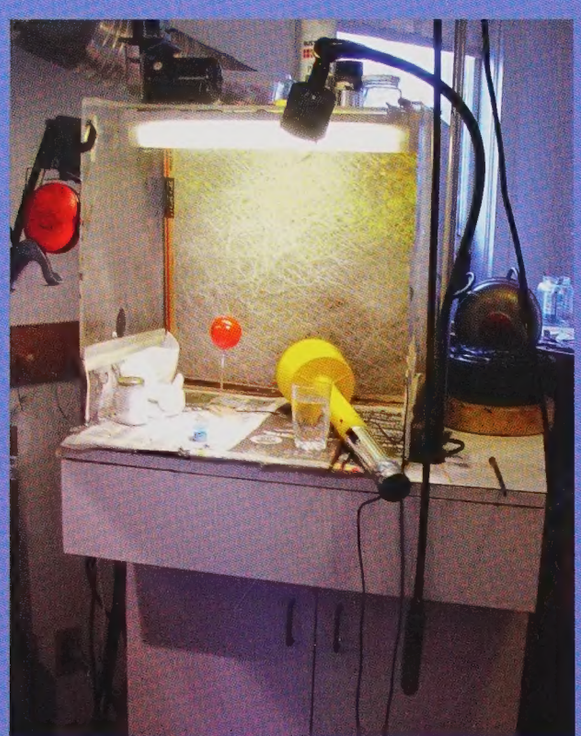
STUDIO VISIT

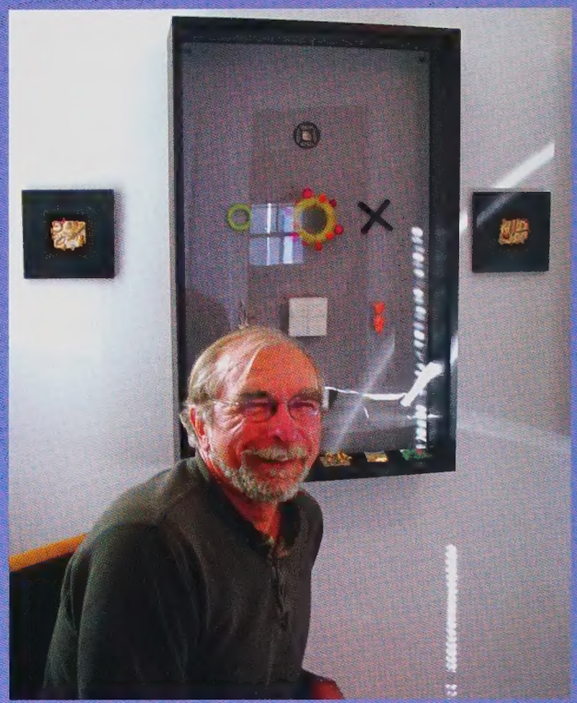
Daniel Jocz

by J.E. Paterak

Upon reaching the porch of Daniel Jocz's Cambridge studio and home, I recalled having been there briefly for a party during one of Mass Art's successful symposiums more than seven years earlier. Jocz and I met again at Haystack's New Works workshop last September. For five days the school becomes for former faculty what it is to students, a place to explore and experiment, or simply work without the everyday interruptions of business or teaching. Jocz was exiled from the metals shop because he brought a new series of aluminum bracelets to be worked on. Aluminum is a contaminant to silver/goldsmithing studios and it was my job, as the studio tech, to boot him out.

While enjoying a cappuccino Jocz made with his prized Rancilio espresso machine, I observed numerous Alessi objects around his kitchen. Jocz then began the studio tour with a visit to the basement where some of his work takes place. There we found relics of plaster sculpture left in a pile. Jocz commented that some days he feels the need to work on that scale again just to remember a sculptural sensibility. His career as an artist began as a sculptor, and that past remains evident in his methods of working. One small area of the basement holds an array of power tools: grinders, belt sanders, a band saw, one old and one new jigsaw. Both the grinder and jigsaw have been used recently for the aluminum series he is currently working on.





We next headed upstairs to a small, light-filled room on the second floor. At a mere 144 square feet it is laid out into various work stations. I am struck with the thought that some of the most inventive and prolific studio jewelers have incredibly modest studios and equipment. Jocz mentioned that because he came to jewelry through a side door, he still only acquires tools when he needs them for a specific project.

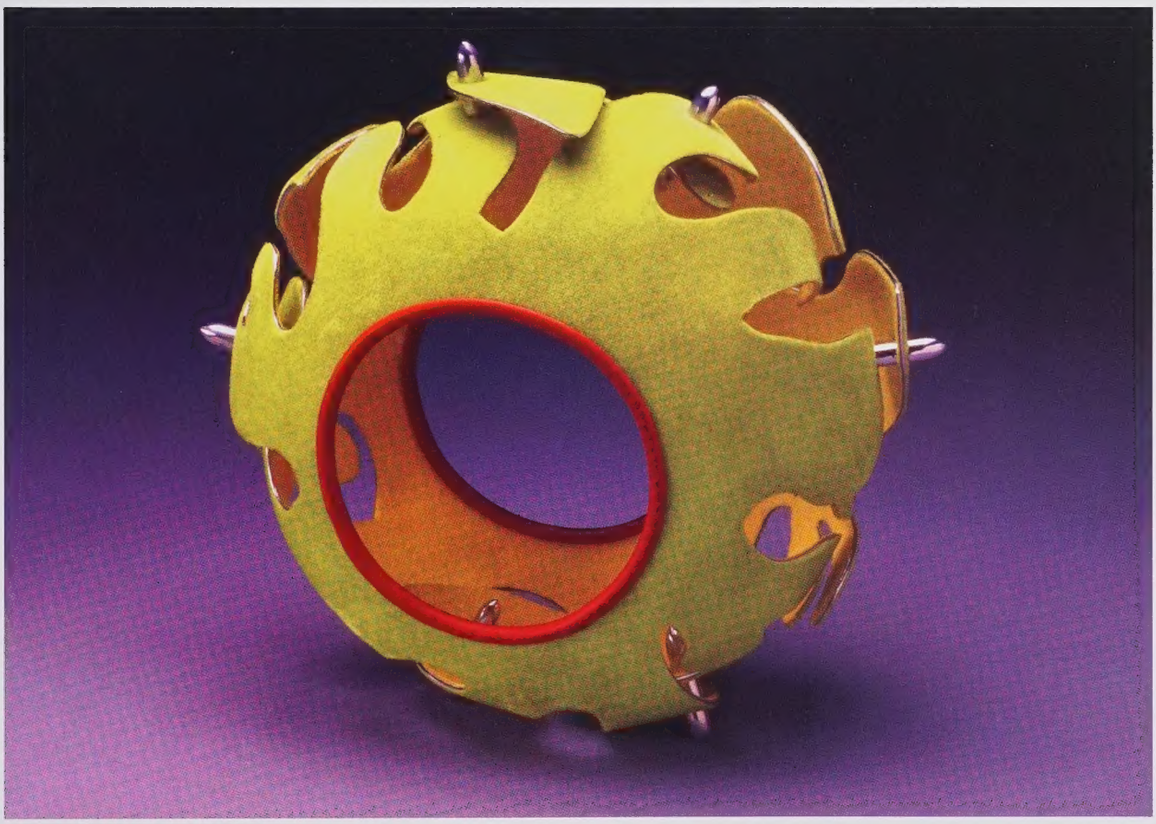
When I first saw Jocz's work in 1992 I was intrigued with his "Protos" series of rings with polymer and pigment. As a newcomer to metalsmithing, wearability did not interest me, but I was drawn to the unwearability of these rings, and to their curious organic shapes. Jocz's bold and unusual applications of color on silver have continued to engage me. Of all Jocz's work the flocked "Candy Wear" series is perhaps the most pedestrian in its use of a mundane industrial application to produce fun, easily understood shapes. What is definitely *not* pedestrian is all that goes into the design process.

Dan Jocz has earned a certain "ownership" of flocking by research and experimentation. The flocking itself is relatively easy—it is everything else that goes into creating a piece of functional flocked jewelry that is challenging. Jocz demonstrated on a flocked tiara that needed extensive repairs. A sphere that was to be mechanically attached needed to be flocked. It happened so quickly I barely saw it occur. Essentially the rayon flecks (lightly spritzed with salt water to help them get charged) are put into a "flocking gun," and an electronic wire is clipped to send the charge to the stand (covered in conductive paint) that the sphere rests on. The gun is turned on, aimed, and swiveled as the rayon flies through the air to attach itself in an upright position to the sphere. Within seconds Jocz had transformed the piece.

Although the magic of this science is awesome, it is the ingenuity of the design work that goes into the flocked object that is truly amazing. The hard work lies in the elaborate prototyping of models, molds, and mechanisms that goes into a form that will fit the body and also be easily taken apart in case of repair. For the two colorful neckpieces lying on the to-be-flocked table, Jocz developed a prototype that was crafted from rubber hose and copper wire to achieve a form that would rest comfortably on the neck. Then brass corner joints were created, precisely cut on angles, soldered, and cleaned up. All this was carefully constructed to make a mold, which was later cast in resin and then electroformed. That was just the skeleton of the piece—the magnetic mechanisms still had to be designed and redesigned, then created and finally flocked. The great labor invested in creating these two necklaces could only be compensated through large-scale production, a fact that led us to discuss the different modes of working: being a designer, versus a one-of-a-kind studio jeweler, versus a production jeweler. Like many metalsmiths, Jocz and I share an affinity for the thrill of discovery in making something the first time, knowing full well that it is a luxury most of us cannot afford.

Before the end of my visit I had the chance to step into the next room of Jocz's office. It was the same size as the workroom but very different in feeling. Whereas the organized chaos of the workroom is all about process and discovery, the methodical organization of this room is all about business. A new IMac was central, complete with a JBL sound system, a fax machine, copier, and scanner. This room was also beautifully monochromatic, with black, white and gray machines, black and white photos of people adorned with jewelry in black frames, and handsome dark gray cases hung with jewelry works collected or created by Jocz. Beyond the office, in Jocz's apartment, there hang more cases with a museum quality display of the progress and transitions he has made over his 20 years working as a studio jeweler. It seems nothing can stop him from pushing the envelope of studio experimentation and explorations. In his most recent series, Jocz was perhaps the most serious and straightforward he's ever been. The *American Requiem*, a collection of stunning brooches, eloquently dealt with the array of emotions many of us experienced after September 11. It is through this breadth of voice that Jocz continues to be an artist I will watch with enthusiasm and anticipation. ⧗

J.E. Paterak, a jeweler and occasional writer, has her studio/gallery in Portland, Maine.



clockwise from lower left, opposite page
Flocking area of Jocz's Cambridge, Massachusetts studio

Daniel Jocz in his studio office, 2003

Untitled (bracelet), 2003
aluminum, rayon flock
diameter 6"
Photo: Dean Powell

Jocz's metalwork in various stages of production

Watercraft (tea infuser), 2003
sterling silver, ruby, diamond
2 5/8 x 1 3/4 x 1 1/8"
Photo: Tim Thayer

Tom Muir

The Forest and the Trees

by Marjorie Simon

"When any useful thing is designed the shape of it is in no way imposed on the designer, or determined by any influence outside him....All the works of man look as they do from his choice, and not from necessity."[1]

"Being next to a big old tree has always been one of my favorite places." —Tom Muir

Universal Joint Bracelet, 2003
sterling silver, nickel, stainless steel
3 1/8 x 2 5/8 x 1"
Photo: Tim Thayer

First impressions can be misleading. Take Tom Muir, for instance. In person, he seems like a mischievous younger brother with an easy-going southern drawl. His affable persona masks a tenderness and grace that he expresses in refined and often witty holloware. Muir's work hovers between craft and design, science and nature. To understand it, look to the forest and the trees: the forest for its interrelatedness and the ecosystems that inhabit the physical space, and the trees for their symmetry, their geometry, and their spirituality.

Muir has always felt strongly about trees. As a boy he was comforted by a "best friend tree." Now he shepherds 24 acres of forestland in the high grasslands of Ohio, where a cold dry climate and fertile glacial soils support forests of hardwood trees. The dominant ecosystems that influence his life and work are anchored by an unusually large variety of indigenous species, some of which are estimated to be hundreds of years old.

Born in 1956, Muir grew up in suburban Atlanta, hence the long vowels and soft speech. His early childhood was spent in that contradictory period of American history known as the 1950s, and he was a teenager during the Vietnam era. But his real roots are found in a value system of craftsmanship and utility; from his father he absorbed a work ethic in which one never cuts corners.

Though he wasn't aware of it during his childhood, Muir's family tree was populated with craftsmen and metalworkers, including two blacksmiths, jewelers, a boat builder, and a glassblower. Encouraged from an early age to express his creativity, Muir studied drafting in high school and then drawing at Georgia State University. His first college art class was team-taught by Richard Mafong and the late Jem Freyaldenhoven. In graduate school at Indiana University he studied with Randy Long and Leslie Leupp. The influence of Leupp's airy and linear sculpture and objects is most evident

The Definition of Is (espresso server), 2000
sterling silver, aluminum, acetal
11 1/4 x 2 3/4 x 5"
Photo: Tim Thayer

in Muir's work of the 1980s. What attracted him to making jewelry were things that had always interested him, specifically, technique, process, challenge. Muir thought learning metalsmithing would be like studying a difficult musical instrument: if he could do that, he could do anything.

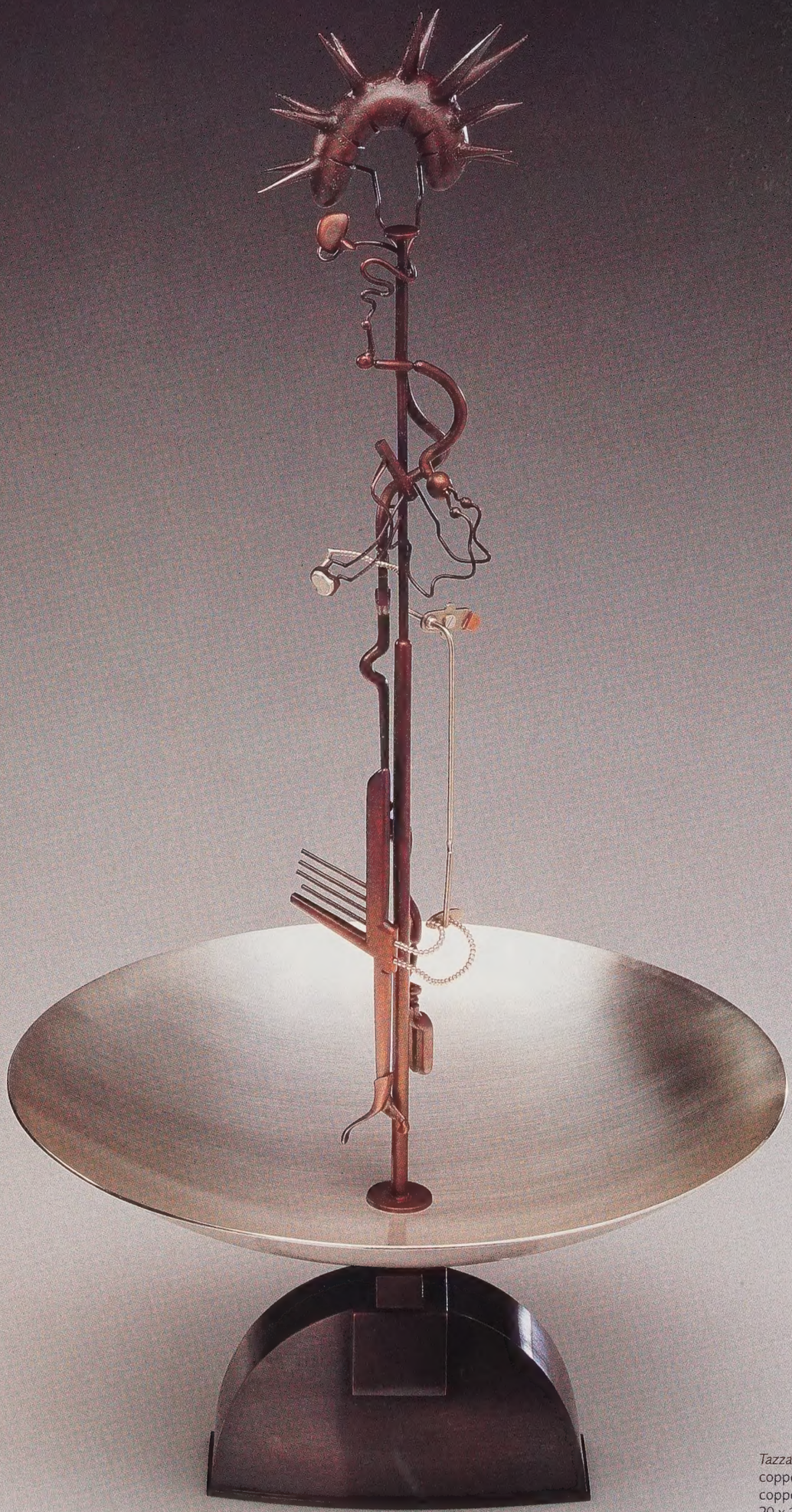
Structure, nature, and balance underlie Muir's engineering and are represented aesthetically by his use of mirroring and interrelated forms. He looks for the structural or transitional elements in the natural arrangement of things, and the objects he makes reveal that combination of man-made and natural forms. He considers the totality: the woods, soil types, the geometry of nature. What is the temperature of the water? Is it running water or still? Domestic objects such as tea infusers and tea servers are based on the harmonious symbiosis of an ecosystem. What distinguishes Muir's work from other nature-based designs is its elegant subtext. A coffee pot in the shape of a tree wouldn't be nearly as interesting as the organic, often sexualized androgynous globes that bulge from Muir's containers.

What distinguishes Muir's work from other nature-based designs is its elegant subtext. A coffee pot in the shape of a tree wouldn't be nearly as interesting as the organic, often sexualized androgynous globes that bulge from Muir's containers.

The perfect forms of Muir's holloware may seem removed from random patterns of leaves and branches, but think of the moment in Mondrian's visual development when the tree fractured into lines, and you have an idea of Muir's preoccupation with the perfect reflection: the moment when reality and reflection or illusion come together. He considers vertical symmetry, the dialogue between object and image, the nature of boundaries and inversion, and what it means to "reflect." Muir's latest containers, both the tiny tea infusers and the larger teapots, exemplify these recurring themes. They comment on the traditions of making as well as changing social mores.

Silver has been a part of American domestic ritual and tradition since the eighteenth and nineteenth centuries, when bourgeois families used coffee and tea services, serving utensils, and other silver domestic objects in imitation of their English counterparts. A robust American silver design and manufacturing industry grew as people of means were no longer satisfied to live with homemade utensils and furnishings, and fine craftsmen became a part of the social-cultural-economic nexus. The wealthy had sterling silver gravy boats, porringers, and crumb trays, and the middle classes had silver-plated items of similar design. Even the big silver designers such as Gorham and Tiffany created whimsical and ornate holloware and utensils according to the prevailing design motifs of the time. Commercially available modernist pitchers from the 1930s seem close cousins of Muir's vessels.

This history forms the deep background of Muir's vessels. Muir's design motifs have ranged from medieval mace to nurturing hand to nature-inspired spirals and leaves. He commemorates the tradition that produced them, recalling them as commonplace objects that are recognized even if they're no longer in everyday use. He uses the ideal of an elegant silver coffee server to create a bawdy, sexually ambiguous vessel in *The Definition of Is* (2000), linking an old-fashioned form with one of America's most embarrassing moments, the Clinton-Lewinsky debacle. Its sexualized contours hint at escapades lurking in the best of homes. More than one of Muir's vessels intimates the moment of sexual differentiation, or androgyny. In choosing a provocative title, Muir threatens to undermine the seriousness of his intent. Viewers may fix on the deception, rather than, as Muir intends, the immanent. By this he means "the moment when sexual principles come into the universe and there is an awareness of being that is erotic." In this case the title, though amusing, is a little misleading.



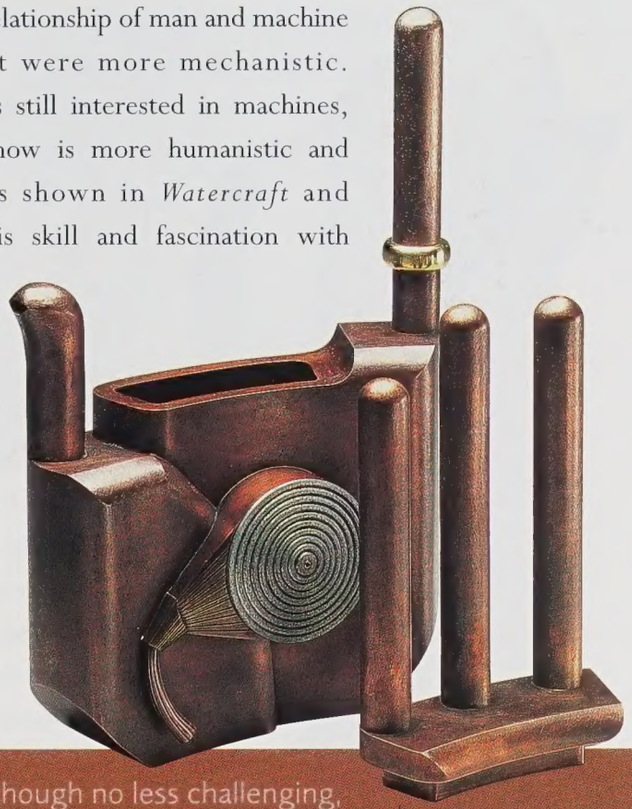
Tazza, 1992
copper, bronze, brass, sterling silver,
copper place, steel
20 x 10 x 10"
Photo: Rob Wheless

Tea Infuser, 1993
sterling silver
6 1/4 x 1 1/2 x 1 1/2"
Photo: Tim Thayer

Tea infusers are popular domestic objects for silversmiths. Like the black Bakelite telephone, they are easily recognizable, and their obvious function provides a little structure around which much experimentation can take place. They're not so serious that they cannot support a playful treatment and they are a favorite of students everywhere. Muir has made many of them, often paired with larger teapots, including the *Changing Hand* (2002) version and the silver *Watercraft* (2003) infuser with copper *Watercourse* (2003) teapot.

The tea infuser gives Muir a chance to work in a smaller, though no less challenging, format, and to comment on the value of utility and the interrelationship of all things. In 1991, he used sterling silver, giving his designs a cool formalism. A decade later, the *Changing Hand Tea Infuser* (followed by the *Changing Hand Tea Pot* in 2002) warms with the addition of gold and encoded nature references. An oak leaf on the palm side signifies strength, masculinity, and tenacity and the transformational nature of seed into mature tree, a common metaphor for growth (acorns into mighty oaks). It also refers to the practice of finding bits of history in fields, old man-made objects that become part of the natural landscape. The perforated side where the tea drains out contains the rings of the tree that reveal its age. In the *Watercraft* tea infuser, some holes appear as a shadow pattern beneath the leaf and others are on the ends of the fingers and thumb. By making them flattened ovals rather than cylinders, the vessels have two distinct sides with two related images—and an implied relationship between them.

In the mid-1980s, Muir openly explored the relationship of man and machine in works that were more mechanistic. Although he is still interested in machines, Muir's work now is more humanistic and relational, as shown in *Watercraft* and *Watercourse*. His skill and fascination with working parts leads him to make a spring-loaded door on the tea infusers: turn the thumb to open the chamber and fill with tea. As each piece is being formulated in his mind, Muir considers what it means and what he wants to convey, that is, the "essence" of the object, the vesselness of it. His skillful drawings and paper models precede the complex assembly of all kinds of domestic and personal objects, including eyeglasses, cups, salt and pepper shakers, and even a Hanukkiah, the nine-cupped candelabrum used during the Jewish festival of Hanukkah.

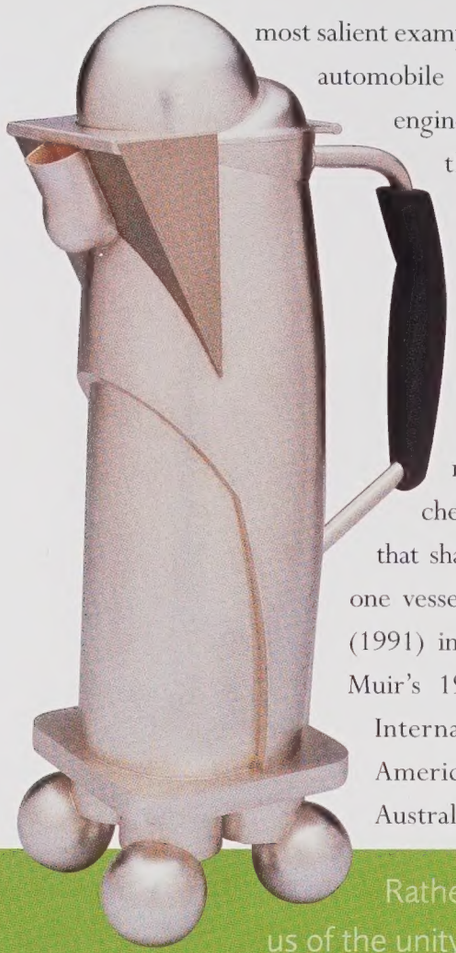


Muir's vessels have continued to swoop and dive into the 1990s and beyond, some like Komelia Okim's gliding figures, others like Leupp's pipes and lamps. They recall the design aesthetic of the mid-1950s-60s known as Populuxe.[2] The design of Populuxe objects promised fun and luxury, not a severe functionalism—appearance was more important than utility. It was anti-arts-and-crafts, and characterized by a desire to eschew the historic, the traditional, and the ethnic, and to embrace the fantasy of the new. The

The tea infuser gives Muir a chance to work in a smaller, though no less challenging, format, and to comment on the value of utility and the interrelationship of all things.

Watercourse (teapot), 2003
copper, brass, aluminum
12 1/2 x 4 x 7 1/4"
Photo: Tim Thayer

Changing Hand (teapot), 2002
copper, brass
12 x 2 1/2 x 7"
Photo: Tim Thayer



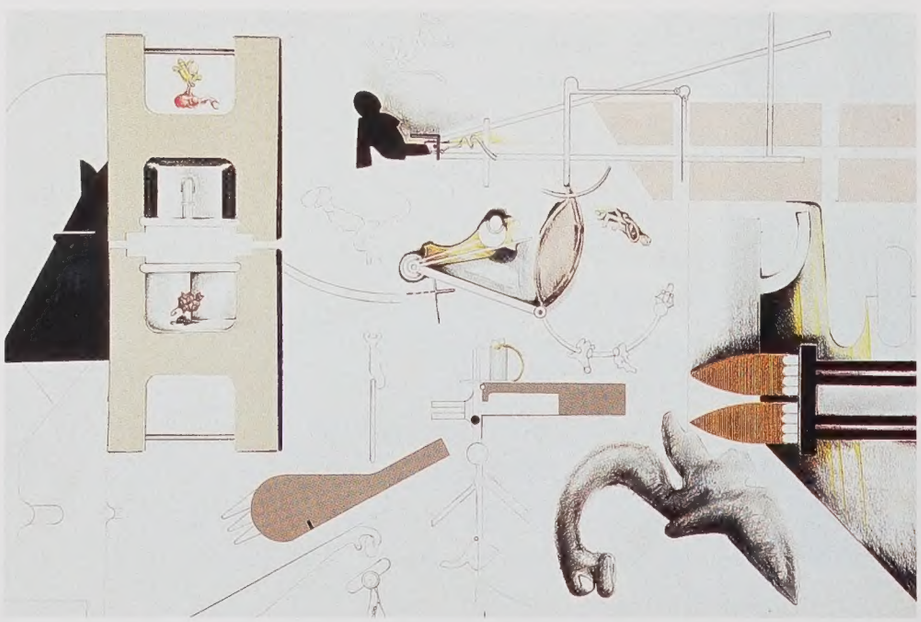
Espresso Server, 1991
sterling silver, nickel, oxidized aluminum
10 1/2 x 5 1/2 x 3 1/4"
White House Collection of American Crafts
Photo: Tom Muir

most salient example of this aesthetic is, of course, automobile design and the romance of jet engine-inspired fins. Growing up in the car culture of the south certainly contributed to Muir's aesthetic, but he was also influenced by domestic objects of the time, such as his mother's aluminum egg cooker. He remembers it resembling "a space ship from cheap 1950s sci-fi movies," and that shape can be found in more than one vessel, including an espresso server (1991) in the White House Collection. Muir's 1994 entry in "Design Visions International: Directions in Glass, American Jewellery and Metalwork, Australia" is illustrative. In the *Tazza* (dish), a twisted vine topped with a spiky caterpillar emerges from a satellite dish that is itself embellished with a tuning fork, as if Jack's beanstalk culminated in an insect from outer space. At the time, Muir was teaching at the Center for Creative Studies in Detroit (now the College for Creative Studies), which gave commentators Sarah Bodine and Michael Dunas reason to call Muir "a boulevardier from Detroit" and to frame his choice of holloware in terms of the many possibilities inherent in the larger format.[3]

It is in these larger objects that "one can see the traditional enthusiasm Americans have for the highly individualistic, the iconoclastic, and vernacular and the pastiche that form their own language of independence from classic European tradition.... Muir's design sensibilities for elegant functional pitchers and carafes borders on the flare of an auto body customiser."[4] Of course Muir was hardly the first designer to incorporate the romance of speed. In 1925, silversmith Johannes Steltman was inspired by a racecar to create a tea service of enamel, silver, and semi-precious stones (although in truth it looks more like a fish).[5] And as recently as 1984 Austrian Hans Hollein designed a tea service for Alessi called *Aircraft Carrier*.

Rather than separate natural forms from machined ones, Muir reminds us of the unity that links biology to physics, the sympathy of form between the atom and the cosmos, the cell and the organism.

Drawing, 1999
paper cutout, pencil
18 x 11 3/4"
Photo: Tom Muir



Sarah Bodine brought the maker back into the discussion of design, when she posed the provocative question of "whether holloware's sculptural possibilities derive from the inside or the outside of the piece, whether the creative process pushes the skin outwards or whether the skin is raised to envelop and calm the turbulent atmosphere of its interior space. Where does the true character of holloware lie?"[6] No one raises, sinks, folds, or encloses a vessel without taking on the history of holding. Muir is always aware of working back and forth, inside and out. His affection for Populuxe expression is sustained by a maker's concern for meaning. Makers of holloware take on the issue of containment from the outset, as Lisa Gralnick pointed out in her excellent essay in the 2001 *Exhibition in Print*.[7] The vessel is both container and contained, with the interior space as important as exterior. In contrast to, say, Harlan Butt's incense burners, which seem to personify serenity, Muir's undulating, often asymmetrical forms seem to just barely contain some perverse imp, or energy, waiting to jump out.

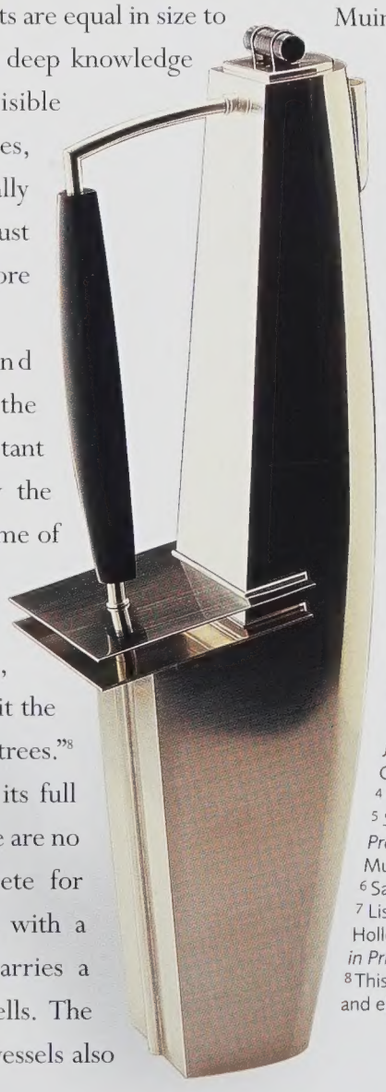
Tom Muir's silver containers connect man and nature. Rather than separate natural forms from machined ones, Muir reminds us of the unity that links biology to physics, the sympathy of form between the atom and the cosmos, the cell and the organism. Biology is both the impetus and the recipient of engineering. Organisms are a collection of pumps, valves, filters, pipes, hinges and ball joints. *Universal Joint Bracelet*, made in 2003, seems more closely related to the internal structure of a limb or wing than to a statement about adornment for its external form. Gleaming silver articulates its complex movement and flexion, unlike the actual wrist whose connections will wear out in a few thousand repetitive motions. Today, bionic physiology covers a titanium hip joint with literal skin. An integral hinge is invisible on the exterior of a coffee pot or tea infuser. Neither will move smoothly without careful engineering. Muir references nature in an oblique way, glancing off the literal, so it's unclear whether that bulge is a breast or an engine cowling. Following the model of the tree whose hidden roots are equal in size to the visible branches, Muir's deep knowledge of nature supports his visible mechanics. When he chooses, he can make an anatomically correct white oak leaf, or just suggest leafness with a more generic form.

"The observations and discoveries I make [in the woods] every day are important in my work. I try to view the bigger picture along with some of the smaller details that usually go unnoticed." To facilitate his meditations, Muir cuts trails so he can visit the "largest, most impressive trees."[8] One chinkapin oak spreads its full majestic crown because there are no neighboring trees to compete for soil, water, or sun. A tree with a four-foot diameter trunk carries a lot of history within its cells. The details Muir includes in his vessels also

A chinkapin oak tree on the artist's Ohio property, March 2003
Photo: Tom Muir

contain a history, whether personal, such as the oak leaf in *Changing Hand Tea Infuser*, or social, as in the many coffee and tea servers, or even political, as in *The Definition of Is*. By adopting the hand as his most recent metaphor, Muir brings human agency and reference to craftsmanship back to the fore. The hand raised in greeting seems to arrest or caution the viewer as well.

Industrial designer David Pye once questioned functionalism by taking apart the questions about what a thing "does," demonstrating the folly of imagining that there can be only one answer. Muir's working philosophy is to challenge form in the context of utility. He looks at "use" or function and tries to see how many ways it can be imagined. It is often noted that art looks backward and forward at the same time. Tom Muir's trajectory from the "boulevardier of Detroit" to snails and tree rings moves with the times, but looks over its shoulder all the same.



Cycladic Figure with His Hair in a Roller, 1985
sterling silver, nickel slats, anodized aluminum
11 1/2 x 4 x 3"
Photo: Bob Vigiletti

Marjorie Simon is a metalsmith and writer based in New Jersey.

[1] David Pye, *The Nature and Aesthetics of Design* (Bethel, CT: Cambium Press, 1978), 14.
[2] Thomas Hine, *Populuxe* (New York: Alfred A Knopf, 1986).
[3] "American Jewellery and Metalwork," in *Design Visions: International Directions in Glass, American Jewellery and Metalwork* (Perth, Australia: Art Gallery of Western Australia, 1992), 81.
[4] Ibid., 82.
[5] *Silver of a New Era: International Highlights of Precious Metalware from 1880-1940* (Rotterdam: Museum Boymans-van Beuningen, 1992).
[6] Sarah Bodine, "Tom Muir," *Metalsmith*, Fall 1988, 25.
[7] Lisa Gralnick, "Thickening the Edge: Contemporary Holloware in an Age of Pluralism," *Metalsmith, Exhibition in Print 2001*, 8-13.
[8] This and all unattributed quotes are taken from personal and electronic communication with the artist.

Ted Muehling
Levers and Knobs, 2003
brass; brass and crystal
Manufactured by E.R. Butler & Co., New York

Taking Hold

Architectural Hardware Today

by Akiko Busch

Fletcher Coddington/
Arrowsmith Forge
Lock Box and Key, 1999
bronze
5 x 7"

Some 20 years ago, the Victoria and Albert Museum in London sponsored "Towards a New Iron Age," an international exhibition of contemporary wrought ironwork. The thesis of the exhibit was that while ornamental ironwork "had remained in the grip of the historical pastiche" for much of the twentieth century, it nonetheless was a discipline that offered enormous potential for modern design. The pieces shown—lighting, tools, and both interior and exterior architectural ornamentation—illustrated how this antique discipline could offer forms "appropriate to the tastes and attitudes of our own time."

Today, those sentiments seem quaintly outdated, as it is widely accepted that architectural metalwork of all kinds, and not only ironwork, has contemporary relevance. The work of designers from varying disciplines brings new perspectives to the field: while jewelers may work with an intuitive awareness of human form, architects are more driven by the shapes and rhythms of the built environment, and other metalsmiths may bring an engineering and more technical finesse to this field. Seen together, all of these handles, hinges, knobs, pulls, and other artifacts reflect an area of design that speaks to our time with increasing resonance.

While innovation in ornamental hardware may have been more limited during the Modern period, the creativity encountered today is the result of something more than the predictable cycles of style and aesthetics. Designer Jennifer Coppel comments, "Because of its function, hardware is a tool, a tool that becomes an extension of our hand. Extending ourselves in both the physical and intellectual sense is what excites and challenges most hardware makers today." Coppel may seem to be stating the obvious, yet in the last two decades, our growing preoccupation with the intangible

Jennifer Coppel
"Leg Series," 1999
bronze
dimensions variable

seems to have whet an appetite for the tangible. In the Information Age, when human communication at large has become a more elusive and ephemeral enterprise, looking for that extension of the hand, that sense of physical connection, may be a natural and intuitive human impulse. And certainly metalworkers are skilled in forging such connections.

In the Information Age, when human communication at large has become a more elusive and ephemeral enterprise, looking for that extension of the hand, that sense of physical connection, may be a natural and intuitive human impulse.

Consider Coppel's own work. Now a product designer for Excell Home Fashions, she owned and operated her own company, Eden Hardware, in Detroit from 1999 to 2001, and she continues to offer some of that work on a limited production basis. The "Leg Series," available on a custom basis for orders greater than 20, speaks to the sensuality of an artifact that connects a person to a building. Coppel explains, "The crispness of the concave escutcheon heightens the organic sensual quality of the handle. This intentional contrast is derived from the seductive image of a woman's leg emerging from a car, an image we so often see in movies and advertisements."

Fletcher Coddington of Arrowsmith Forge in Millbrook, NY, brings an entirely different perspective to hardware. His work highlights how this area of metalwork often goes well beyond the decorative to recognize highly complex technical and mechanical challenges. Throughout the 1980s and 1990s, Arrowsmith produced a high volume of production work—furniture, lamps, hardware—for outlets including Pierre Deux in New York City. In more recent years, with an economy less robust and NAFTA assuring cheaper production overseas, the studio has turned to custom work, much of it architectural hardware. Coddington is a designer for whom the technical and aesthetic demands of a project are often indistinguishable. His work might range from repairing a nineteenth-century English telescope damaged on 9/11 to fabricating equipment for the local highway department to creating all the hardware and metalwork for a estate wine cellar. As he puts it, "You get a project, and you figure out how it's going to work. Then you make the tools for it. Or maybe you make the tools to make the tools. Or the tools for installation."

Among his most challenging work is his custom architectural hardware, where concerns about weight and balance are as significant as any aesthetic consideration. His design of a brass hinge to support an eight-quadrant, twenty-one-inch round window, though seemingly prosaic, was a highly elegant piece of problem solving. The hinge needed both to limit the openings and have an offset so that the window wouldn't hit the casement when open. The problem, Coddington explains, was that hinges long enough to support the weight of the window were all straight, so he had to fabricate an eleven-inch piece of curved brass.

Fletcher Coddington/
Arrowsmith Forge
Window Hinge and Latch, 2003
bronze
hinge height 16"

Gabriella Kiss
Atrium (Takashimaya, New York), 2001
bronze, 18k gold
4 1/2 x 8'

Jeweler Gabriella Kiss brings a different sensibility to the discipline. A nationally known jeweler, Kiss looks to the natural world for her imagery—fragile insects, serpents, delicate leaves and petals are rendered in 18k gold and precious gems. Her work also often resonates with personal references. The mahogany "four-generation bureau" in her son's room was built by her husband, furniture designer Chris Lehrecke, with the hardware fashioned by Kiss from thin sapling branches—a grape vine, apple tree, plum tree, pear tree—planted by her grandfather on property now her father's. Cast in bronze, the slender branches read as sculptural extensions of her jewelry.

Kiss explored similar naturalistic imagery on a much larger scale for Takashimaya, the Japanese department store's flagship space on Fifth Avenue. The sixth floor atrium opening onto the fourth and fifth floors has been encircled with a delicate hedge of interwoven sapling branches, a four-and-a-half-foot-high thicket of sumac, cherry, and birch, cast in bronze. Interspersed among the branches are a sequence of 18k gold butterflies that appear to have alighted from some transcendent migration. While working as a barrier from the floors below, the piece appears as a crown of sorts, jewelry for architecture indeed.

Such work has understandably elicited the interest of architects and designers, and among those interested in working with Kiss is Rhett Butler, who owns and runs E. R. Butler & Co. in New York City, now through its acquisitions the oldest hardware company in the country. Butler established the company 15 years ago, and since then has acquired a number of older companies, among them the W.C. Vaughan Collection of early American and Georgian period hardware and the E. & G.W. Robinson Crystal Collection of early American hand ground crystal knobs. Along with his comprehensive collections of hardware, Butler has amassed a library of some 5,000 books, trade catalogs, and original factory manuals, and his primary interest now is in completing some of the period collections he has purchased.

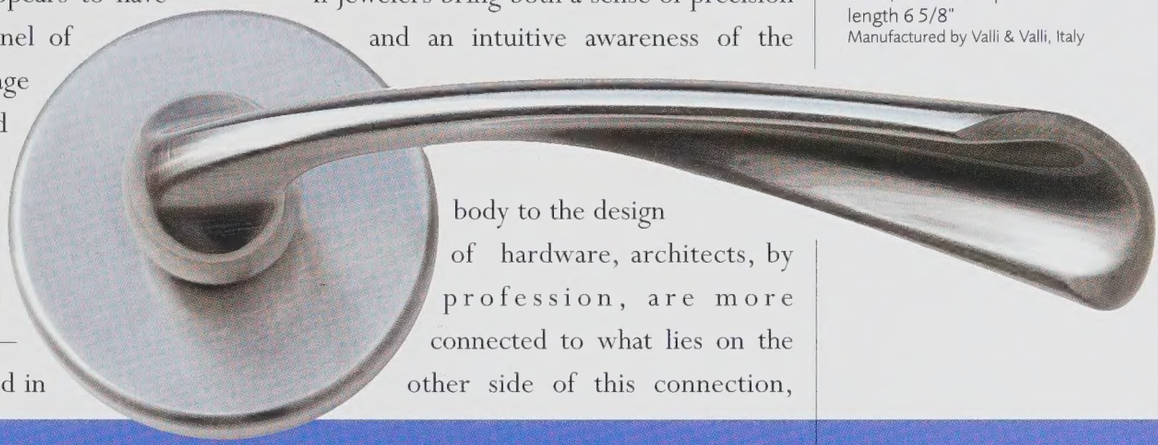
Butler also works with contemporary American architects and designers for custom work. Among the customized hardware the company has produced are such curiosities as a brass and wood lever handle reinvented by Thierry Despont from an antique French dagger for Bill Gates and a lever handle sheathed in ermine designed by Benjamin Noriega-Ortiz for rocker Lenny Kravitz. When asked whether such custom work has wider applications, Butler reports, "Very little custom work is

appropriate for larger production. Most of it is pretty project oriented."

That said, Butler is also working with other contemporary designers to produce limited production lines. Another of Butler's designers is Ted Muehling, the well-known jeweler who in recent years has designed porcelain tabletop accessories for Nyphenburg. Muehling is known for the way in which he reimagines and reinvents the familiar, reassigning a value to the ordinary—a tiny pinecone appears to have been washed in silver, a kernel of rice spun in gold. The language of form is concise, direct, and straightforward. Without necessarily relying upon precious metals or costly gems, all manners of natural forms—pods, cones, kernels—become something else, poised in some nether world between the literal and the abstract. A series of candlesticks he designed for Butler are based on three shapes—egg, rod, and trumpet. But whether it is jewelry or tabletop accessories, Muehling's work tends to reflect his training as a jeweler; there is a deep connection with the human form, an engagement with and awareness of the body.

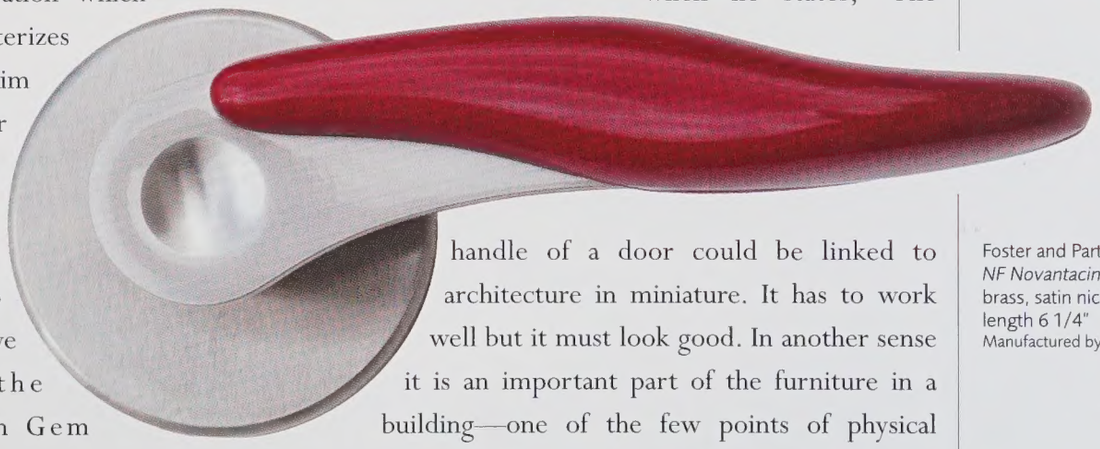
Longtime friends, Muehling and Butler have an easy collaboration which the latter characterizes by saying "I tell him to apply this or that technology, and he'll bring some whole new aesthetic back to me." The two have traveled to the annual Tucson Gem Show, and Butler recalls, "His interest is in buying stones. For me, the interest is in the technology of making jewelry, and how that can relate to hardware." The recent products of this collaboration include brass lever handles with a perforated texture that evokes a piece of coral; and rounded oval knobs, in the shape of small eggs, that have been made from pulverized crystal. "It has the qualities of black jade," says Butler, "And you could make it out of black jade, but Ted has a realistic view. He shies away from things being too expensive. He wants people to buy them."

If jewelers bring both a sense of precision and an intuitive awareness of the body to the design of hardware, architects, by profession, are more connected to what lies on the other side of this connection, which is to say, the building. Valli & Valli, the Italian manufacturer of architectural hardware, established its subsidiary Fusital in 1976 to involve designers and architects in the design of hardware. Since then, the company has worked with such architects as Michael Graves, Norman Foster, Vico Magistretti, Richard Meier, Renzo Piano, and Aldo Rossi. Foster's words bring us full circle to Jennifer Coppel, whom he echoes when he states, "The handle of a door could be linked to architecture in miniature. It has to work well but it must look good. In another sense it is an important part of the furniture in a building—one of the few points of physical contact." What all of the Fusital lines show us is that this point of physical contact can be simple and straightforward in the manner of Richard



Piano Design Workshop
P Novantotto, 1998
brass, satin nickel plate
length 6 5/8"
Manufactured by Valli & Valli, Italy

Interspersed among the branches are a sequence of 18k gold butterflies that appear to have alighted from some transcendent migration. While working as a barrier from the floors below, the piece appears as a crown of sorts, jewelry for architecture indeed.



Foster and Partners
NF Novantacinque, 1995
brass, satin nickel plate, pear wood
length 6 1/4"
Manufactured by Valli & Valli, Italy

Thierry Despont
Dagger Lever, 1996
brass, wood
length 4 1/2"
Manufactured by E.R. Butler & Co., New York

Benjamin Noriega-Ortiz
Lever, 2003
brass, ermine
length 4 1/2"
Manufactured by E.R. Butler & Co., New York

Meier's elegant geometries, in which curves, rectangles, and squares may reduce the architectural principals of a building into a handheld scale. Or it can be one that more fully engages the senses: the soft, multiple curves of a brass lever handle from the workshop of Renzo Piano accommodate the curve of the hand and give a place for the thumb to rest, all with a subtle sensuality.

A similar sensitivity to the hand's predilections informs the hardware produced by FSB, one of Europe's leading manufactures of architectural hardware. Established in Germany over 120 years ago, the company now has offices around the world. The firm's success rests on a combination of innovative engineering and aesthetic principles articulated by the company's design director during the 1950s, Johannes Potente. Potente's "four rules of good grip" describe the elements of an ideal lever: a guide for the thumb, a hollow for the forefinger, a support for the ball of the thumb, and a volume to fill the palm. Potente's principles still guide the company's production today, and his own refined lever designs are now part of the Museum of Modern Art's permanent collection.

FSB continues to enlist the talents of recognized designers such as Philippe Starck to develop complete hardware programs, consisting of matching levers, window handles, cabinet knobs, and doorstops.

A reasonable person in 2004 might be forgiven for finding a preoccupation with the design of doorknobs and handles a frivolous matter. Yet as Piano states, it is a place where human contact begins: "A door handle. Sometimes, one caresses it gently in order to enter without noise, to avoid waking the baby. Sometimes one grabs it with an imperious gesture to take possession of the room....There is no gesture that is repeated with greater intention and there is no object of our daily life which requires more participation; or one on which our mood is so much projected." Surely this is what Coppel refers to when she speaks of these tools that help us extend ourselves. And what she and Piano, along with all these architects and designers, suggest most clearly is that the means with which we are connected to the built environment are as infinite as the sensibilities forming them. The ways in which we take hold of the built world are limitless—they can begin anywhere and everywhere. ▮

Akiko Busch lives in the Hudson Valley and writes about design for a variety of publications.

"A door handle....There is no gesture that is repeated with greater intention and there is no object of our daily life which requires more participation; or one on which our mood is so much projected."

Philippe Starck
Door Handle #1991, 1992
anodized aluminum
handle length 5 3/4";
backplate diam. 7 1/4"
Manufactured by FSB Franz Schneider Brakel GmbH, Germany

At the Omai Mine in Guyana 3.4 million cubic meters of cyanide-rich effluent was released when a tailings dam failed.

The Price of Gold

by Susan Kingsley

"The most striking feature of its long history is that gold led most of the protagonists into the ditch."—Peter L. Bernstein

Gold is the ultimate paradox. Is it merely a yellow material that we happen to use a lot for coins, jewelry, and dentures? Can it be adequately defined as a dense, lustrous, precious metal that is an element, Group Ib, Period 6 in the periodic table? Is it money, lucre, wealth, something to hoard? Or is it a sacred substance, symbolizing the sun and possessing the power to purify? Goldsmiths and artisans around the world esteem it as the most beautiful and desirable of metals; warm and glowing, malleable, ductile. Its permanence, its durability and resistance to corrosion immortalizes their labor. But it is also a commodity, a costly raw material with a fluctuating price that often serves merely as a vehicle for easy profit.

Cyanide-poisoned fish on the banks of the Danube

The flow of gold throughout history has caused us to be obsessed, intoxicated, inspired, and exalted. It has, from the beginning of history, been a dream, a myth, a symbol of something beyond itself. In *The Power of Gold: The History of an Obsession*, economist Peter L. Bernstein recounts how it has, for 3000 years, excited and motivated peoples and cultures, determined the fates of leaders, destroyed economies, prompted inhuman acts, and "driven people to intense hardship in the hope of finding instant wealth beyond all sense of rationality."[1] In the end, he says "... gold has stirred the passions for power and glory, for beauty, for security, and even immortality. Gold has been an icon for greed, a vehicle for vanity and a potent constraint as a monetary standard" ...and notes that no other substance "has commanded so much veneration over so long a period of time."[2]

While gold's mystique is indisputable, we must resist being so entranced by its luster that we fail to recognize and consider the realities of gold at the beginning of the twenty-first century. The ecologic, economic, social, and political price of gold is far costlier that we imagine. We are in the midst of a new gold rush, one that is consuming wilderness areas, contaminating watersheds, destroying ecosystems, and imperiling the economies of poor nations and the well-being of indigenous people throughout the world. Some cumulative, irreparable consequences of mining will be with us, in this country and around the world, forever.

This new gold rush is the result of a converging complexity of circumstances on a global scale, including: 1) the development of highly effective and extremely toxic methods of gold extraction, 2) a continual rise in worldwide demand for gold, 3) the demise of gold as global monetary standard,

4) the continued withholding of enormous stockpiles of gold in the vaults of national banks, and 5) huge, multinational corporations very eager to cash in.

Over the last few decades a number of factors have contributed to very significant changes in mining practices. World gold production in 1950 was 879 metric tons. In 2000 it was 2,540 tons. The grizzled old prospector working his claim is no more. While a significant number of small mining operations do continue to operate in third world countries, 45% of the gold produced today comes from vast, open pit mines owned by a handful of big companies. The average amount of waste produced by open pit mines is 10 times that of underground mines. In 2000, gold mining in the United States produced 353 tons of gold and more than a billion tons of contaminated waste rock. In a scale we can better understand, one gold ring generates, on average, 35 tons of waste rock.

...45% of the gold produced today comes from vast, open pit mines owned by a handful of big companies. The average amount of waste produced by open pit mines is 10 times that of underground mines.

Cyanide heap leach pads at Crowfoot Mine in Nevada, the nation's dominant gold producing state

Cyanide

Expanded mining activity as well as the increased amount of waste that is generated are due largely to the development of a process for extracting gold, *profitably*, from very low bearing ore. The process, known for a century but first used here in the 1960s, is now responsible for 85% of gold produced. It has revolutionized the mining industry because up to 97% of the gold can be obtained from very low-grade ore. The process is based upon the use of cyanide to leach the metal from crushed rock.

Cyanide is as toxic as it sounds. Short-term exposure to high levels harms the central nervous system, respiratory system, and cardiovascular system. Even very small concentrations kill fish, birds, and plant life. Massive quantities of this deadly poison, more than 2 million pounds annually, are used in this country for cyanide leaching.

In heap leaching, finely ground rock (or tailings from earlier mining) is piled up on plastic sheets and continually sprayed with a solution of sodium cyanide. The runoff, or "pregnant solution," is collected in "pregnant ponds," then filtered through activated carbon to collect the gold. The leftover solution is stored in "barren" ponds. These ponds average one acre. In vat leaching, cyanide is mixed with crushed ore in large enclosed vats where gold bonds to added carbon. After removing the gold, the spent ore (tailings) and cyanide are sluiced to a mill tailings pond. These open ponds of cyanide-laced debris may cover 200 acres and remain as long as the mine is active.

The use of cyanide in mining poses an unreasonable risk of permanent environmental damage. Under ideal conditions, consisting of a neutral pH and the presence of oxygen and sunlight, cyanide breaks down into other, less toxic, compounds. However, under alkaline conditions it doesn't, and under acidic conditions cyanide gas is formed. The plastic liners that are placed under the ponds and heaps pose a risk for this reason. Like your average garbage bag, seams may break, they can be punctured and may deteriorate, leaking the cyanide solution into the ground, where it cannot break down. If it contaminates underground water, there is no known way to get rid of it.

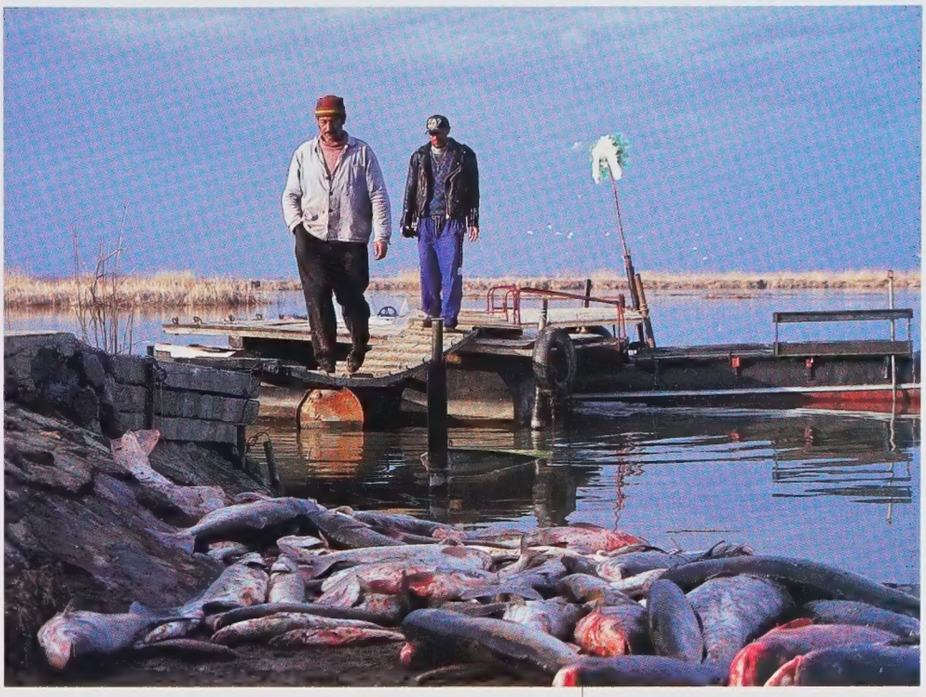
Ponds attract migratory birds, bats, and other wildlife and many thousands have been killed. While the U.S. Fish and Wildlife reports successful "teaming" with several mining companies to look for solutions, which have included preventing toxic solutions from collecting, netting ponds, and installing cyanide

recovery systems to treat mine wastes,[3] there are, today, no environmental standards in place.

Tailings ponds are created with earthen or wooden dams and are subject to accidental spills, discharges, dam overflows, and water runoff. Cyanide is highly reactive with heavy metals, which are often significant components in the damage resulting from this type of event. Over and over again, failures to contain toxic waste have resulted in catastrophe. In perhaps the worst case of reckless mismanagement, called by some "the Exxon Valdez of the American mining industry," a lethal combination of cyanide and heavy metal leaks from the Summitville Mine in southwestern Colorado killed all aquatic life along a twenty-seven-kilometer stretch of the Alamosa River. (Containment and cleanup were estimated to cost our government $80 million, as the mining company went bankrupt.)

In 2000, an overflowing tailings dam at a mine in Baia Mare, Romania released an estimated 50-100 tons of cyanide (as well as heavy metals) into the Somes, Tisza, and Danube Rivers, flowing 250 miles before eventually reaching the Black Sea. It contaminated drinking water used by 2.5 million people. Thousands of tons of fish were killed and a significant portion of the Tisza River was rendered undrinkable and effectively dead. The severe negative impact on biodiversity, the rivers' ecosystems, the drinking water supply, and the socioeconomic conditions of the local population have resulted in it being named the worst environmental catastrophe in Europe since the Chernobyl nuclear plant meltdown in 1986.

The use of cyanide-based processes for extracting gold has been barred in only three places in the world. In 1997, the community of Bergama, Turkey, won a legal ban on cyanide, after convincing the highest administrative court that a large-scale mining operation in their town was at odds with the Turkish Constitution and its guarantee of a healthy and intact environment. After years of suffering dozens of toxic leaks from mines, voters in Montana approved a ballot measure in 1998 prohibiting new open pit gold and silver mines that use cyanide as an ore processing agent. And in August 2000 the Czech Senate passed an amendment to the government's geology bill that will ban the use of cyanide heap leaching technology by the gold mining industry.[4]

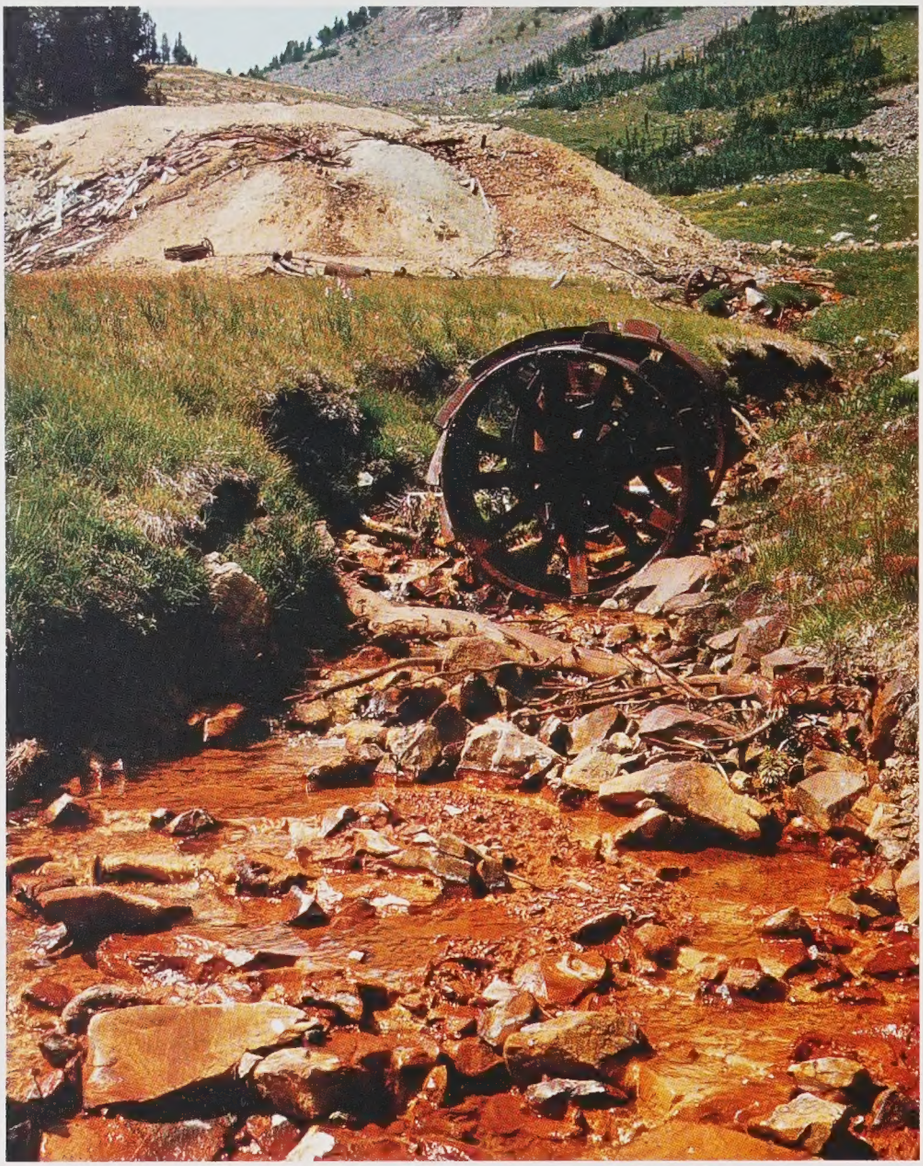


Cyanide-tainted runoff from the Baia Mare gold mine in Romania poisoned fish in the Danube River.

Mercury

While the wide-sale use of cyanide is a relatively recent development, mercury has been used for centuries as a cheap and easy method to extract gold. Like cyanide, it is a deadly toxin. Once mercury enters the environment, its vapors become trapped in the atmosphere, precipitate onto the ground, and run into the water supply. When exposed to organic matter, methyl-mercury is formed. This compound is stored in animal fat and accumulates over time, reaching levels in fish that can be thousands or millions of times higher than in the river. There is no end in sight to this legacy of the California Gold Rush, or its use in developing countries.

Mercury introduced into the lakes and rivers of California during the 1849 Gold Rush, estimated to be 7,600 tons, is responsible even today for 50% of exposure in the San Francisco Bay area.[5] Eating fish from lakes and rivers in the Sierra Nevada Range is not recommended. Mercury can cause serious brain and nerve damage. The Latest U.S. Center for Disease Control figures indicate that 8% of U.S. women of childbearing age have mercury levels so high that their developing babies are at risk of neurological damage.[6]



Wastes from gold mining have leached acid and heavy metals into Fisher Creek, just outside Yellowstone National Park, turning its waters red.

Mercury is still used by small-scale "artisanal" miners because it can extract as much as 60% of the gold. It is mixed with gold-bearing mud and gravel into an "amalgam," which is then burned out with a torch or even over an open fire, releasing mercury vapor into the atmosphere and exposing miners and bystanders to toxic fumes. As much as 95% of all the mercury used in artisanal gold mining is released into the environment.

An estimated 13 million people work as artisanal miners throughout the world in at least 30 countries in Latin America, Africa, and Asia. They produce about a quarter of the world's total gold output, primarily using mercury. It is estimated that in the last 30 years, 2,000 metric tons of mercury has been used to extract gold in one of the world's most productive as well as fragile regions, the rainforests of the Amazon.[7] Thirty percent of miners recently tested in Brazil showed mercury levels above the allowable World Health Organization limit, and there are reports that indigenous children are showing decreased performance in tests, an indication of damage to the central nervous system.

Regulation

Knowing this, one would assume that mining would no longer be permitted to contaminate U.S. watersheds with mercury. Unfortunately, this is not the case. Each year the hardrock mining industry legally releases 3.1 million pounds of mercury into the environment. The EPA names the hard rock mining industry as our nation's top polluter, turning out (in 2001) 3.4 billion pounds of toxic waste, including 366 million pounds of arsenic and 355 million pounds of lead along with the mercury. This is more than the output of power plants and all other industries in the U.S. combined. There are no environmental standards for hardrock mining under the 1872 Mining Law.

Signed into law by Ulysses S. Grant, the General Mining Law, or Hard Rock Mining Act of 1872, was designed to encourage settlement in the west and promote the small scale pick-and-shovel mining of hardrock minerals such as gold. It is still in effect and applies to more than 270 million acres of federal land, nearly 25% of all the land in the U.S. Under this law, anyone can stake a mining claim on public land if a "valuable deposit" is discovered. The purchase price to buy, or "patent," a claim was set in 1872 and is still in effect — $2.50 to $5.00 an acre.

Since 1872, more than 3.5 million acres of public land, an area equal to the size of Connecticut, has been sold to private owners. In 1994, a mining corporation paid $5,140 to patent 1000 acres in Nevada that contain over $10 billion in recoverable gold. And in 1995 another mining company paid $450 for land in Nevada containing over $68 million in recoverable gold. The coal, gas, and oil industries pay 12.5% royalties for the commodities they extract every year, but minerals, including gold, are free! It is estimated that between $2 billion and $4 billion worth of minerals are given away each year and hundreds of patent applications worth tens of billions of dollars in minerals are

pending. The 1872 law's generous terms extend to everyone, and today 16 of the top 25 producing gold mines in the U.S. are owned by foreign multinationals. They also receive exploration subsidies and tax breaks. Mining companies get a depletion allowance based on the estimated decline in the mineral deposit's value (due to their mining), and they don't even have to clean up when they are finished.

The 1872 mining law established mining as the highest and most preferred use of public lands, regardless of other competing uses or environmental sensitivity. The "right to mine" extended to mining companies remains in place as one of the major statutes in federal land use policy. It has no provisions for public comment, environmental protection, or reclamation. More than 60 of the hundreds of old, abandoned hardrock mines are so contaminated that they have been included on the Superfund National Priorities list. Yet the mining practices that produced them are legal and still in use today.

Certainly there should be standards in place to protect surface and groundwater from toxic waste, to safeguard wildlife and fragile ecosystems, and to ensure the restoration of mine sites is part of the process. Reform efforts are underway, but are slow, due to the mining industry's powerful political lobby.

Water

Perhaps the worst environmental consequences of mining have to do with water. During the California Gold Rush, a mining technique employed by the Romans was revived. For the "hydraulicking" process, water was diverted through a system of canals to high holding tanks, then directed in jets to wash away entire hillsides. Thousands of acres of forest were cut for timber for the dams and flumes, and by 1855 the foothills were laced with 4,500 miles of canals. An estimated 13 billion tons of debris was sent downstream to San Francisco, silting the bay, turning hundreds of thousands of acres of farmland into "sludgy desolation," and taking out the city of Marysville on the way.[8] The process was finally outlawed for use in California in 1884, but Bay Area companies still provide the equipment for use in developing countries.[9]

Today, water consumption during mining operations is a key issue. Mines in Nevada are responsible for 75% of the gold produced in the United States and 10% of the world's annual production. And they consume more water than all the people in the state. There are hundreds of mines in Nevada, three dozen in the Humboldt River Basin alone. One of the state's largest open pit mines — a mile wide, two miles long and a half-mile deep — is so large that it can be seen from space. Mines of this scale must be "de-watered" by pumping out as much as 100 million gallons of water (from one mine), every day. Some of the water is used in the mining process, in heap leach piles that are 350 feet high, but most is just dumped into the river. The water table has been lowered more than 1000 feet in some areas. No one really knows what will happen when the pumps eventually stop, but it is likely that the open mines will pull water from the aquifer and form contaminated pit lakes. Springs, streams, and the Humboldt River may go dry, and the aquifer may never recover. To value gold more than water is to value money more than life. And the life that is being drained out of Nevada is coming from land that was the life of the Western Shoshone Indians. Skirting the 1862 Treaty of Ruby Valley, the United States has claimed ownership of the Indian territories and sold them to private companies that are now producing about 260 tons of gold each year.

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Acid Mine Drainage

Unfortunately, these predictable and devastating consequences of mining aren't the worst of it. Mining for gold involves blasting, digging, crushing, and exposing rocks to access

small amounts of gold. One scientist has estimated that gold mining in the United States generates about a billion tons each of waste rock and tailings annually.[10]

The waste rock often contains sulfides. One of the most common examples is pyrite. When sulfide-bearing rock is exposed to the oxygen in the air and to water, a dilute sulfuric acid is formed. The problem known worldwide as AMD (Acid Mine Drainage) occurs when heavy metals such as arsenic, cadmium, copper, lead, mercury, selenium, and zinc are dissolved from the rocks and washed into surface and/or ground water. Specialized microbes adapted to acidic conditions continue oxidizing the minerals and assist in the process. The Environmental Mining council of British Columbia calls AMD "the mining industry's greatest environmental problem and its greatest liability... an acid-generating mine has the potential for long-term, devastating impacts on rivers, streams and aquatic life, becoming in effect a "'perpetual pollution machine.'"[11]

Seeping from underground mines, washing down the exposed walls of open pit mines, soaking through piles of displaced surface rock ("overburden") and stockpiled ore, and leaking from tailings ponds, AMD is an enormous problem because of its potential cumulative damage to the environment. "Once it starts, AMD can effectively sterilize an entire water system for generations to come—turning it into a biological wasteland and a huge economic burden."[12]

AMD costs millions annually to mitigate and is impossible to reverse with existing technology. Drainage from the recently abandoned and bankrupted Zortman-Landusky mine in Montana contaminates nearly every stream in the area and is so severe that water treatment will be required in perpetuity. Officials have estimated that cleanup will cost $33.5 million in addition to the $30 million bond posted by the (now bankrupt) mining company, but the actual cost could be even higher.[13]

According to the Mineral Policy Center, there are 557,000 abandoned mines in the United States, mostly in the west. And according to EPA studies, at least 40% of western watersheds are contaminated by mine waste and continue to carry serious threats to the health and safety of communities downstream. Total clean-up estimates range from $32 billion to $72 billion.[14]

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Riverine and Submarine Tailings Disposal

Although the practice of "riverine tailings disposal" was discontinued in the United States a hundred years ago and is essentially illegal in both the U.S. and Canada, several North American mining companies continue to dump tailings into the rivers of third world countries. A similar practice of disposing toxic tailings by piping them to the ocean floor, called "submarine tailings disposal," (STD) violates international agreements that protect the marine environment and is not permitted in the U.S. and Canada. The impacts of STD and riverine tailings disposal are frequently much more devastating and widespread than predicted by the companies and their effects are immediate, long-term, and impossible to counteract.

Indigenous People

Practices like riverine and submarine tailings disposal are outlawed in most developed countries. It demonstrates a particularly abhorrent environmental double-standard for mining companies to do in the developing world, where strong environmental safeguards may not yet exist, what they are not permitted to do at home.

Since 1994, the new gold rush prompted more than 70 developing countries to change their laws in order to attract foreign gold mining companies. During the following five years, exploration investments doubled in Africa, quadrupled in the Pacific, and expanded six

times in Latin America. The rush for gold has propelled extensive mining in Indonesia, Papua New Guinea, the Philippines, Brazil, Colombia, Chile, Peru, Mali, Ghana, Tanzania, Zimbabwe, and Uzbekistan.

Unfortunately, the shameful manipulation of indigenous people for gold has a long and brutal history. From the earliest times, the lust for gold motivated wars over land as well as the enslavement of peoples to extract it from the earth. During the California Gold Rush the Native American population was reduced from 150,000 in 1846 to about 17,000 in 1900 due to enslavement, murder, and deaths caused by malnutrition and disease. Recent books documenting this genocide through firsthand accounts leave no doubt that mourning 1849 would be more appropriate than celebrating its anniversaries.[15]

Dozens of native populations around the world have already been devastated, and it is predicted that half of all gold produced in the next 20 years will come from indigenous lands. It is difficult to imagine a greater clash of civilizations than what occurs when a multinational mining corporation decides to extract gold from an area that is home to an indigenous population, bringing changes that disrupt those peoples' livelihood, cultural traditions, and spiritual connections to their land.

The imposition of massive industrial projects on traditional populations—often without their consent and against their will—leads to disastrous consequences. Representatives of communities and groups affected by mining from Asia-Pacific, Africa, India, and South and North America met in London in 2001 to compare the impacts of mining on the lives of communities and ecosystems and to share strategies on how to confront the industry. The *London Declaration* demands a full recognition of community rights and refutes the unsustainable claims of the mining industry and the current models of "engagement" that are neither adequate nor fair. Their ongoing efforts seek to promote the "requirements and rights of the millions of people engaged in frontline struggle with the world's fifth most important industry."[16]

Golden Sunlight gold mine in southwestern Montana, owned by the Canadian Placer Dome, the world's sixth largest gold mining company

The World of Gold

Canada is the leading source for capital for mineral exploration, having raised $6 billion in 1996 alone and serving host to one of the world's top three gold producing companies, Barrick Gold.[17] In 1996, Canadian companies owned interests in 3,400 mineral properties in 100 countries. Like the U.S., Canada is kind to mining. In Canada, investors in foreign mining projects can deduct up to 100% of expenses from taxable income.[18]

London and Zurich are the capitals of the gold world. Zurich is an important center of activity because of the country's liberal banking laws, and the fact that there is no tax on gold sales. In addition, Zurich has four large gold refineries that process 60% of the world's annual production. London has set global prices since 1848, when the London Bullion Market Association (LBMA) was formed, and is also the center of the gold deposit market, providing the international standards for pricing gold loans, swaps, and forward positions.[19]

It is estimated that the total amount of gold ever mined is 145,000 tons and that 85% is still around. Of those 123,000 tons, approximately 88,000 tons are in private hands as coin, bullion, and jewelry, and 32,000 tons are held officially by central banks. Of that amount, 22,000 tons (68%) are owned by five countries (the U.S., Germany, France, Italy, and Switzerland) and the International Monetary Fund (IMF). The United States holds the greatest share, 8,135.4 tons, and

An aerial view of the environmental damage wreaked by the Summitville gold mine in Colorado, which closed in 1992. The 1,400 acre mine, high in the San Juan Mountains, leaked cyanide, acid, and metal laden waters into the Alamosa River, killing aquatic life and threatening irrigated farmland downstream.

it makes up 57% of our national reserves.

Why is all this gold being stored in vaults? It is almost 25% of all the gold ever mined, and nearly 13 times annual world production. It is enough to satisfy the world demand for years. Gold's official role in world exchange came to an end in 1971, when the U.S. stopped offering to convert its dollars to gold at the rate of $1 to .035 oz. ($35 per ounce). Since then, the international monetary system has been based on paper currencies.

To be sure, gold does remain a global currency, thanks to its ability to slide secretly over borders. A senior U.S. law enforcement official claimed that gold played a uniquely important role in Al Qaeda's financial structure because it is exempt from international reporting requirements for financial transactions and is a favored commodity in laundering money from drug trafficking, organized crime, and terrorist activities. He stated, "you can melt it, smelt it or deposit it on an account with no questions asked." Officials said the Taliban and Al Qaeda moved large amounts of gold into Afghanistan during the 1990s and estimated that $10 million was hand-carried out in a three-week period as the government fell.[20]

The *Economist* has called gold the "spent fuel of an obsolete monetary system,"[21] and the investment firm Lehman Brothers has referred to its transition from money to commodity as "reverse alchemy," turning gold into base metal. Recently, a number of central banks have been selling off their holdings. During the 1980s, they sold an average of 9 tons per year, and by the 1990s, the average was 219 tons per year. Belgium reduced their stocks by 75% over the last 15 years, and Canada pared theirs from 533 tons to 6 tons during the same period. Australia, one of the world's major gold mining countries, sold two-thirds of its reserves (167 tons) in July 1997. When Great Britain followed by announcing their intention of selling 415 tons and Switzerland voted to release 1300 tons, all hell broke loose.

In 1999, the price of gold fell to $266 per ounce, its lowest level in 20 years, and a 66% fall from its 1980 high. Mining companies and mineworker's unions successfully forestalled the U.S.-backed plan to reduce the IMF's reserve and played a role in bringing about the 1999 "Washington Agreement", in which 14 European countries and the European Central Bank (ECB) agreed to limit their selling to a total of 400 tons per year over a period of five years. By the end of the year, the price of gold climbed to almost exactly where it had been before. It is unclear what will happen in 2004, when the agreement expires.

Gold is no longer money, but as a commodity it continues to be a powerful element in the global economy. Clearly, the massive gold reserves being kept from the market promote the extraction of new gold, bringing about cumulative, and in some cases irreversible, social and environmental damage. As holders of 23% of the world's gold, the largest share of any nation, the United States has an opportunity to demonstrate leadership.

Although the U.S. Federal Reserve Bank published a "discussion" paper in 1997 that recommended that the U.S. government would benefit substantially from selling its gold, that earlier sellers would benefit more, and that it is economically inefficient to continue to mine gold when above-ground sources were available, the U.S. has not sold or considered selling any of its reserves.[22] John E. Young makes a case for debate in his well reasoned book *Gold: At What Price?,* in which he says "A full accounting of the global costs—human, environmental, and financial—of today's gold economy makes it

clear that it is time to reassess issues ranging from the level of gold reserves, to mining industry subsidies, to environmental policies. The release of stored gold to the market could save billions in opportunity costs for the governments who hold the metal, and could sharply reduce the additional environmental and human impacts from gold mining."[23]

World Gold Production

In 1970, world gold production was 1480 tons. South Africa produced more than two thirds of that amount, 1002 tons. Russia was the next highest, with only 203, followed by Canada (76), the United States (55), and Australia (19). In that year, five countries produced just over 91% of the gold, while all other countries produced less than 9%.

By 2000, world gold production climbed to 2,573 tons.[24] South Africa still produced the most gold, 427 tons, but that amount reveals a drop of 43%, and indicates production less than 17% of the world total. The United States followed with 353, then Australia (296), with China and Canada tied (149). Roughly, five countries now accounted for slightly more than half the world production.

For South Africa, gold is a blessing and a curse. Gold mining has been central to South Africa's social and economic history, and is key to understanding its strength in comparison to other African countries. The country's gold resources are thought to be around 40,000 tons, about 40% of world resources. Nearly all gold mined in South Africa comes from underground mines, with miners laboring in shafts two miles below the surface of the earth. It is one of the most dangerous places to work at one of the most hazardous occupations in the world. There are frequent cave-ins, and temperatures can reach 130 degrees. Between 1984 and 1998, there were 4,909 deaths—an average of one fatality for every ton of gold. In addition, there have been hundreds of thousands of injuries, a half-million former miners crippled by silicosis, and 4,000 cases of tuberculosis are diagnosed every year.

The gold in South Africa is the costliest in the world to extract, averaging $222 per ounce, while costs in the U.S. are $189 and in Canada, $169.[25] South Africa is more vulnerable than any other country to declines in price—at least half its workforce was cut between 1990 and 2000. Joblessness and poverty, particularly in rural areas, are already serious problems in South Africa. Mining companies, and the global interests that have profited from the labor of these workers, need to be held accountable for their retraining and continuing health care needs.

Although approximately 12% of the gold demand every year is used in industrial applications—dentistry, medicine, and electronics—that number is less than the 15% of total demand met by recycling. Every year, at least 85% of the gold produced is made into jewelry.

Jewelry

Not only is gold not money, it is not a necessary commodity. It doesn't produce heat, or power, or transport. It doesn't provide clothing, or shelter, or supply us with food. Although approximately 12% of the gold demand every year is used in industrial applications—dentistry, medicine, and electronics—that number is less than the 15% of total demand met by recycling. Every year, at least 85% of the gold produced is made into jewelry.

Gold Institute figures show that jewelry fabrication demand increased by 133% worldwide between 1991 and 2000. By region, North America went up 150%, Latin America 180%, the Middle East 185% and the Indian Subcontinent 344%. Economist Peter Bernstein reasons that "Gold consumption doubled in the course of the 1990s, and for good reason. The price of gold was falling while the price of everything else was rising. As a result, gold was perceived as relatively inexpensive."[26]

India is the world's largest market for gold. Gold is deeply woven into social, cultural, and religious traditions and remains an important

channel for savings and investment. Nowhere else does gold circulate so easily between personal adornment and personal asset. Indians buy nearly 20% of the world's gold every year and 95% is used in jewelry. Gold jewelry is given for many occasions, and is the most common gift at weddings. Traditionally, gold jewelry is the only asset a woman may own, and as part of her dowry is the only way of passing wealth along maternal lines. A bride may wear as much as 32 ounces of gold for her wedding.

In India, high karat jewelry (18 and 22 karat) is preferred for both its beauty and its greater purity. It is in constant circulation, with roughly 30% of gold jewelry fabricated from recycled material. Government attempts to control gold have all failed. According to the noted jewelry authority Oppi Untracht, "Gold is a mysterious fever that infects the Indian psyche, and no cure is in sight."[27]

Gold bears an invisible tarnish of misery and devastation. It is a stain that cannot be polished away.

The deserted Zortman-Landusky gold mine, which borders the Fort Belknap Indian reservation in Montana, was owned by Pegasus Gold before they declared bankruptcy in 1998.

Gold Consumption

In 2002, the world demand for gold was 3,414.5 tons. Of that, 80% was used for jewelry, generating a global retail market for gold jewelry worth around 60 billion dollars.[28] India consumed 17%, and the U.S. was next with 11% (388 tons).[29] Gold jewelry sales in the United States in 2002 were a record $15.9 billion.[30] India has long-standing, deeply held religious, cultural, and social traditions that drive gold. But what is it that is driving Americans to consume gold, or jewelry, in such quantity?

The 2002 World Gold Council (WGC) National Retail Report for Jewelry Sales is revealing. Gold remains a luxury item, but it has become increasingly affordable. Mass merchants are the price and volume leaders in the industry, "benefiting from impulse buying based on their positioning in malls, and pass-by traffic."[31] QVC, the television channel, is the fourth largest retailer of jewelry, with annual sales of about one billion dollars,[32] and claims to be one of the largest purveyors of gold in the world. The top two "$100 Million Supersellers" honored by National Jeweler in 2003 are Wal-Mart, with $2.3 billion in sales, and Zales, with $2,068,000,000. Others on the list of 33 are Sterling, J.C. Penney, Sears Roebuck, Tiffany, Kmart, and Costco.[33] The average price for all gold jewelry for the year was down 1.6% to $77. The average price in jewelry stores was $125 and $132 in department stores. For mass merchants, the average was $35.

The large volume of gold being produced and sold at low prices has, however profitable, undermined its standing as the ultimate symbol of wealth and status. At more than twice the price of gold, platinum is making a grab for this position. Marketed as being more pure, rare, and eternal (durable) than gold, platinum jewelry sales increased by 600% during the 1990s. As a result, gold has had to create a new identity. The World Gold Council,[34] whose mission it is to stimulate and maximize demand, is promoting gold as an accessible luxury with the power to transform one's life. CEO James Burton goes so far as to claim, "Gold jewelry is an important part of a woman's psyche; it makes her feel great as well as look good...unlike any other product or brand."[35]

With slogans such as, "Treat yourself to an elegant piece of gold jewelry," and "You are not fully dressed without gold jewelry," the WGC's $4 million advertising campaign, "Speak Gold," features images of women wearing gold in casual settings such as in a cab, while getting dressed, or with loved ones. The idea is that a woman should

purchase and wear gold jewelry because it has the power to transform her everyday life into one of joy, love, and friendship. The belief that gold has this power is, of course, cultural myth.[36] While gold is indeed something beautiful that we can enjoy, even love, it is not part of a woman's "psyche," nor is it necessary in order for a woman to feel great and have a healthy sense of well-being.

The vast discrepancy between the happy, carefree, gold-wearing women pictured in the ads and the realities of gold in today's world must be addressed. Gold bears an invisible tarnish of misery and devastation. It is a stain that cannot be polished away. While the market price for gold may decline, the human and environmental costs keep rising: dead rivers, polluted watersheds, exploited native communities, abused miners, hoarding, and profiteering are dragging us into the ditch. All for the love of gold, the most beautiful and valued of the Earth's many gifts.[37]

Susan Kingsley is a California artist, metalsmith, and person who wishes this story could have a happy ending.

Photos courtesy the Mineral Policy Center, Washington, D.C.

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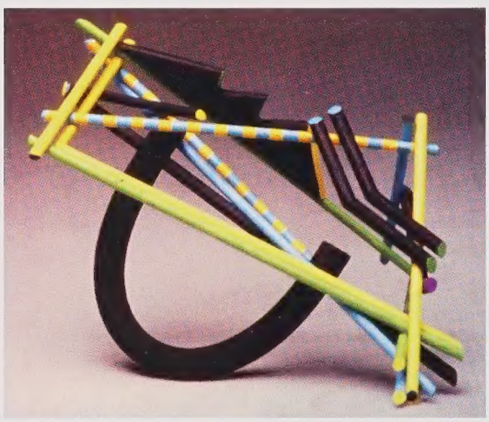
"JEWELRY BEYOND JEWELRY: EVA EISLER, THOMAS GENTILLE, MYRA MIMLITSCH-GRAY, KEITH E. LOBUE, AND MARJORIE SCHICK"

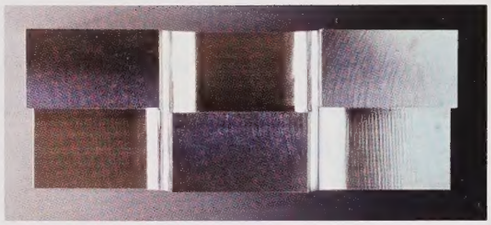
THE HUNTERDON MUSEUM OF ART,
CLINTON, NEW JERSEY
JUNE 24–OCTOBER 4, 2003

by MARJORIE SIMON



Much ink has been spent lately arguing curatorial authority. "Jewelry Beyond Jewelry" is an example of the strength and weakness of the singular curatorial voice. Undiluted by committee compromises, the curator, who in this case is not a maker, bears sole responsibility for the selection of artists. A noted historian and author of numerous texts, including the excellent *Messengers of Modernism: American Studio Jewelry 1940-1960*, curator Toni Greenbaum states in her introductory essay that the five jewelers chosen "represent the best of the genre" and that each is an artist of "vision, skill, originality, and dedication." Unfortunately, this statement is not supported by the exhibition. Not all of the artists represented are equally visionary or original, though they may certainly be skilled and dedicated.

The featured artists all share a disregard for conventional jewelry materials, such as high karat golds and precious gems, and by extension, an embrace of unconventional ones such as wood, aluminum, plastics, and found objects. Greenbaum does not exaggerate the place of Thomas Gentille and Marjorie Schick in the evolution of contemporary jewelry. In 1968, Gentille's revolutionary little green book *Step by Step Jewelry* brought the leading edge of European jewelry design to students at all levels. With it and his own work, Gentille's contribution to American art jewelry cannot be underestimated; he and Schick are truly beyond jewelry. Their work is deep and satisfying, imbued with the love of making and uncompromising craftsmanship.



Working large in painted wood and papier-mache, Schick addresses the entire body in "three-dimensional drawings-to-wear," enveloping the shoulders as well as the neck and wrist. The sole American practitioner of the "New Jewelry," which flourished in England and Holland, Schick has remained a singular presence in terms of scale and concept. Her voluptuous forms contrast nicely with the architectonic clarity of Eva Eisler and Gentille. She is represented here by, if not her best work, at least a sampling of colorful body sculpture, including an outsized wall kimono made of maps of the United States.

The trajectory of Modernism is represented by Gentille and Eva Eisler. Separated from Gentille by a generation, Eisler retains a Bauhaus aesthetic of clean line and architectural precision backed by flawless fabrication. Her work contains a graceful tension of line and space with a sustaining confidence in the structure of forms. In an intimate way it is as much about space and materials as are Schick's monumental structures. Eisler is unquestionably a fine artist, but not an especially influential one.

Myra Mimlitsch-Gray's confrontations of scale de- and re-construct domestic objects. Giant prongs fabricated into pendants isolate and even fetishize a component part of the jewelry trade—the prong setting. *Planish Ring* is an intimate version of her enormous brass tray. Reduced in scale, the simple form is surprisingly successful as a ring.

The inclusion of Keith LoBue unintentionally compromises the credibility of the curator's claims. LoBue has continued to refine his aesthetic and his technique and his memory-laden assemblages are crisp and often clean, in contrast to the raw emotional content of the appropriated photos and found objects. But this work cannot be considered avant-garde or influential, as claimed in the wall text. The glued-on text fragments in particular seem obvious and sentimental. It's too bad, because in another context, for example, viewed on LoBue's website, one might appreciate its dark beauty and material juxtapositions.

The room fairly danced with historic associations. Gentille's carved Surell pin recalled Pavel Opocensky; Schick's wall pieces referenced Frank Stella or Judy Pfaff by way of Bryant Holsenbeck. Robert Ebendorf looked over the shoulder of Joseph Cornell in LoBue's crab claw and compacts, as well as Gentille's Colorcore bracelet. It was an interesting and a frustrating show, full of unrealized possibilities and not helped by the grandiose text. Anyone who has recast a movie upon exiting the theater would be tempted to do the same after viewing this exhibition. For narrative, what about Ron Ho, Ken Cory, or Kranitsky and Overstreet? Instead of two modernists, what about the sumptuous metalwork of Lisa Gralnick or Sharon Church?

Ultimately, the problem with this exhibition is not so much its content, but its pretensions. As John Elderfield, chief curator of the Museum of Modern Art, described his job: "We should bring in new works that make you think about the past differently, and the presence of the past makes you think about the new differently."[1] Had "Jewelry Beyond Jewelry" been presented simply as a curator's choice the response could be gratitude that a regional museum had created a very nice installation for some important objects of our time.

Marjorie Simon is a metalsmith and writer based in New Jersey.

clockwise from left
Marjorie Schick
Bracelet, 1986
painted wood and rubber
6 1/2 x 9 1/2 x 3 1/4"

Thomas Gentille
Untitled (pin), n.d.
aluminum
1 1/2 x 4 1/2 x 1/4"

Keith E. LoBue
Love, Hope and Beauty (brooch), 1992
mixed media
2 3/4 x 2 1/4 x 3 1/4"

Eva Eisler
Mobius Strip Series (bracelet), 2001
stainless steel, gold
4 3/4 x 3 3/4 x 2"

[1] John Elderfield, "Three Collaborators Chart the Future at the Modern," *New York Times*, 26 December 2003, E50.

"HELEN BRITTON AND DAVID BIELANDER: SILK PURSE FROM A SOW'S EAR/UUS SCHYSSDÄGG ANGGE MACHE (MAKING BUTTER FROM RUBBISH)"

JEWELER'S WERK GALERIE,
WASHINGTON, D.C.
SEPTEMBER 26–OCTOBER 17, 2003

by TACEY A. ROSOLOWSKI

The title of this joint exhibition of jewelry by Helen Britton and David Bielander invokes the range of material manipulations that began to preoccupy craftsmakers in the 1960s. Britton and Bielander add their twist to the jeweler's standard repertoire with objects that emerge from a spirited dialogue with cultural value. Britton is Australian, Bielander is Swiss; both now live in Munich (remaining after their Master's studies with Otto Künzli at the Academy of Fine Art), where they have established a shared workshop (and private life). Each artist's approach is determined by her/his position in a triangle of cultural influences.

David Bielander's 14 objects, in materials ranging from Fimo to hydroculture clay to freshwater pearls, responds to an Old World ethos. *Red Necklace* displays technical mastery with its filigree in lover's knots and heart patterns, the 18k gold encasing rubber seals from beer bottle caps. If lowly and noble materials meld in this piece to form a serious aesthetic statement, other objects gleefully overturn boundaries between high and low culture. The sculptural *Lälle King* brooch is made of a sucker-studded bathtub octopus, folded so the product's holes form eyes and the tentacle points meet in a crown; Bielander adds a lolling rhondonite tongue. With this detail, as with the cartoonish *Teddy Bear Ring* and *Koala Bear Ring* (of colorful, mass-polished stones—reviled by all but hobbyists and new age shops, where they are sold, ironically, for their healing properties), Bielander signals his serio-comic message: masquerading in lofty forms, the materials of mass-culture invigorate tradition, insuring that it remains a living practice rather than a static code of reproduction.

Freshwater pearls allow Bielander to make his most complex statements on this subject. He uses this material—low-brow for "serious" European jewelry artists—in figures that invoke the Swiss German equivalent of "throwing pearls before swine." *Sow Brooch* is made of 400 pink pearls lashed together with sterling silver wire, with floppy ears and two gray pearl eyes. The face is richly three-dimensional and can appear grumpy or cheerful, depending on how the brooch is pinned on. (*Elephant Brooch*, of gray pearls, is similarly expressive.) *Sow Necklace* drapes the neck in a series of white pearl circles ranging from 3/8 to 2 1/4 inches in diameter. Two floppy triangles of pearls on one circle and two gray pearls on another signal that something is up: accordion-folded, the circles form a pig face (the tiniest is the snout's end).

Bielander and Britton's joint exhibition statement asserts, "We are attracted to the plain, ugly or singularly possessed things that we find around us, and we give these things the possibility to become loved, liked or at least taken seriously.... This transformation must be convincing. Jewelry allows no distance.... You have to love a piece to wear it."

If Bielander works within an Old World value system to catalyze this response, Helen Britton transforms materials with a New Worlder's view of open possibilities. She exhibited 15 objects, all testifying to a love of color, a fascination for hobbycraft materials, and a longing for Australia's sun-drenched land- and oceanscapes. *Orange Sun* brooch is a three-tiered silver shell, painted orange, with spiky rays ringing the clear plastic cover that reveals the inner levels of inward-pointing rays. Minute holes around the circumference are set with orange and pink knobs of heat-treated plastic wire. This is only one example of the rich detail that creates allure with no hint of triviality. The iridescent paint Britton unevenly (and irreverently) applies to her silver pieces also adds textural and visual interest. *Hanging Flower Structure* turns in the light and its greenish-white surfaces blush red. *Green Garden* invites visual and tactile exploration. Three flowers poise together in this brooch; two are set with facetted plastic gems purchased at hobby shops and Britton manufactured the third, imbedding craft-shop pearls in resin, which is then broken to size, leaving a reflective ragged edge.

Britton uses design software to generate templates for her complex forms. However, unlike ornaments that celebrate their computer-assisted origins more than the decorative results, technology always remains an aid for Britton, as her *tour de force*, *Dolphin Love*, shows clearly. The brooch's base is a system of metal hoops, painted pink and encrusted with meticulously set cubic zirconians—a spectacular play space for yellow dolphins and turquoise balls (beads from a hobby shop). Britton's hand intervenes between computer screen and object, tweaking the design's perfection: the brooch explodes with the energy of a Sea World extravaganza, while remaining cooly contained within the geometry of a dome. Pop culture kitsch is the real tool here. Processed through Britton's computer-assisted design vision, the matter of everyday culture is transformed into a convincing, resolutely contemporary aesthetic of color, energy, and light.

Tacey A. Rosolowski, a writer who currently resides in Washington, D.C., was the 2003 James Renwick Fellow in American Craft.

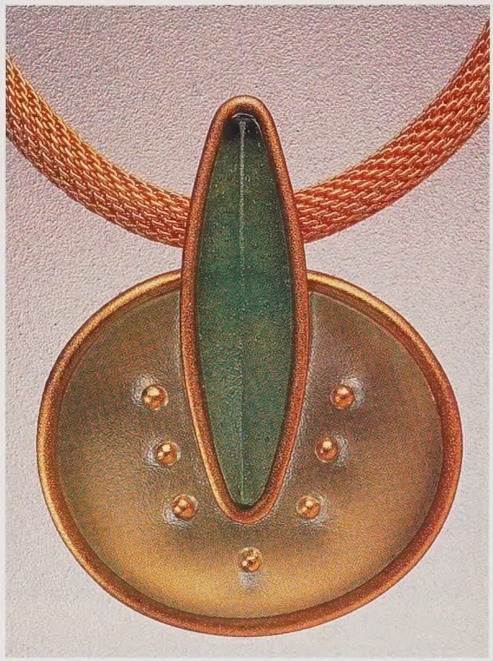
clockwise from lower left
Helen Britton
Dolphin Love (brooch), 2003
silver, paint, plastic, glass, zircons
2 3/8 x 2 x 1 1/8"

Helen Britton
Green Garden (brooch), 2003
silver, marquisite, ironstone, plastic
3 1/2 x 1 x 2/4"

David Bielander
Pearl Sow (brooch), 2003
freshwater pearls, 18k gold
3 1/8 x 2 x 2"

David Bielander
Red Necklace, 2003
rubber bottle seals, 18k gold
length 15 3/4"

Photos: David Bielander



"SCULPTURAL RADIANCE: THE JEWELRY AND OBJECTS OF LINDA MACNEIL"

MINT MUSEUM OF CRAFT + DESIGN,
CHARLOTTE, NORTH CAROLINA
AUGUST 9–NOVEMBER 23, 2003

by KATE DOBBS ARIAIL

The Mint Museum of Craft + Design, a stylish off-shoot of the older Mint Museum of Art, is far less interested in traditional forms than in old practices twisted in new ways to render them successful in the twenty-first-century zeitgeist. "Sculptural Radiance," a fine small exhibition of the work of metalsmith Linda MacNeil, communicates that interest well.

MacNeil makes "jewelry" with gold, but not with jewels. She uses instead colored glass "stones," treating them exactly as she would jewels in her imaginative pieces. MacNeil also makes objects composed mostly of glass. The well-mounted exhibition, without being a full retrospective, is large enough to give an idea of the range of MacNeil's explorations. It consists of eight wall cases of wearables, mostly necklaces, and eight vitrines filled with the objects. The pieces are shown to advantage against smoky blue-gray backgrounds, and the excellent lighting emphasizes the fact that this artist works with a palette of reflectivities as well as of color.

Aside from the functional vases and hand mirrors, I found the objects dissatisfying. The materials are gorgeous, the craft impressive, but the size feels wrong. They are too big to be knick-knacks—but do have an oh-so-precious quality—and too small to have forceful presence. Rather than small sculptures, they might more accurately be called highly refined structural studies. Oddly, the functional pieces succeed more fully as sculptural forms. *Plate Glass Vase* from 1982 (orange Vitrolite glass, yellow glass, 24k gold-plated brass) is shaped like a glorified take-out box with its top flaps open. It invites you closer with its hot colors and angled flaps but keeps you at a distance with its sharp edges and corners. A hand mirror from 1980 with a cone-shaped handle of swirled purple glass and a cast pewter back with industrial and mechanical overtones is another alluring piece, and perhaps refers to the hard work of making beauty.

Several series of necklaces are represented in the exhibition. Some are very playful, like the "Capsule Necklaces" from the late 1980s, with their capsule-shaped elements of polished glass and granite bound together with painted brass wire. The "Elements Neckpieces," also from the 1980s, are bold and merry, their insouciant combinations of shapes and colors like a happy dance. *Lucent Lines #3*, on the other hand, which uses the capsule shape together with a rhomboidal form in acid-polished gray and brown glass fastened with gold tubing, is a model of restrained elegance.

The "Mesh Necklaces" as a group are bolder and more formal than the "Elements Neckpieces." Among the most beautiful of these is *Mesh Necklace #88* (1998). A diamond shape of pâte-de-verre cast green glass is mounted atop a rough circle of acid-polished colorless glass. That is mounted to a gold-plated brass back with tiny pins. You can see the pins through the glass, and they protrude just slightly above the surface. The construction is extremely satisfying.

The "Nexus Necklace" and "Deco Brooch" series (1997-2000) feature pleasing designs with a nice interplay of bold form and precision detail. *Rhombus Fantasy (Nexus Necklace #10)* and *Blue Velvet (Nexus Necklace #6)* are particularly strong, and deal on a smaller scale with some of the formal issues in the less successful "Suspended Parallels" series of objects. Both investigate contrasting qualities like raised/lowered, floating/supporting, linked/separate, and reflective/matte.

MacNeil's most recent work, while remaining highly stylized, uses more organic shapes, mainly flowers and leaves. Here her forms are large and bold, but also rich in detail. The internal rhythm of these pieces is relaxed and majestic. Particularly notable are *Amber Glow (Floral Necklace #16)*, and *Ram's Head Necklace #8*, both from 2002. This last is similar in concept to the stunning *Lotus Necklace #3* (1999), although that design is more delicate and open.

Whether she is creating wearables or objects, MacNeil evidences an unusually nuanced appreciation of her material. Her use of a variety of types of glass along with various finishing techniques gives her an unexpectedly broad palette of hue, value, tint and reflectivity, so that her crisp design work takes on a painterly tone. Even more unusual is the way she so fully integrates the decorative, the rhythmic, and the sculptural with the dance of color and light. The resultant emotional power of her pieces gives them a value that comes from the work of her mind and her hands, leaving us undistracted by the gleam of "valuable" gemstones.

Kate Dobbs Ariail is a cultural critic residing in Durham, North Carolina.

clockwise from lower left
Lotus Necklace #3, 1999
Waterford crystal, glass, 14k gold
diameter 6 1/2"
Photo: Bill Truslow

Mesh Necklace #88, 1998
glass, 24k gold plated brass
pendant height 2"

Amber Glow (Floral Necklace #16), 2002
glass, 24k gold plated brass
pendant height 3"
Photo: Bill Truslow

"ANTI-WAR MEDALS: ARTISTS RESPOND TO THE WAR"

VELVET DA VINCI GALLERY, SAN FRANCISCO
NOVEMBER 1–30, 2003

by TIM PORGES

Some people say that war is beautiful. What they mean by this is that war creates strong, pure feelings: that it reduces life to simplicities like the folk wisdoms of football. The aesthetics of war is partly a matter of beauty and partly one of feeling. When critic Walter Benjamin wrote that fascism consists of "aestheticizing the political," he was referring to an expressionist aesthetic of pure feeling. The team sport aspect of war feels great. The Futurist poet Filippo Marinetti, whom Benjamin quotes at some length on the beauties of war, was very much in favor of war as sport, and as mechanical theater. He envisioned alpine meadows blossoming with machine gun fire and the like. Marinetti loved war much the same way hippies loved unicorns: he had never seen one.

War is ugly. There's no great insight here, but what remains odd is the continuing, anxious need to reclaim some sense of beauty for war: to rediscover beauty in war, and reclaim something that was lost when war became ugly. The fantasy is that once, when the nations were young, or mythic, or anyhow long, long ago, in the Age of Heroes, war was how male beauty best displayed itself. All modern efforts to reclaim martial beauty, like all efforts to turn that search for beauty elsewhere, into sport or the arts, are marked by nostalgia for an age of heroes. And the primary reward for heroism, the symbol of heroic recognition, is the medal. We have Olympic medals, Nobel Prize medals, and, of course, military medals, which honor the military virtues, primarily valor. But the purpose of the medal is only partly to honor the valiant soldier: the reflection of that honor is to be shed on war itself; war as a place where men can be brave and selfless, can rise above themselves and become heroes.

If you set out to make an anti-war medal, this exhibition asks, what would it look like? To whom would it be awarded and for what? The medals, themselves all lovely and desirable, address a wide variety of subjects and purposes. Some point to the beauty of peace, others to the ugliness of war. Some honor peacemakers and victims, others mock war and its makers, particularly George W. Bush. And some, in delicately balanced terms, honor soldiers for what they are, while regretting what they do. Autumn Dawn Griffiths addresses her medal to the icon display of earned medals that adorns the left shirtfront of a formal uniform. Her three brass bars, adorned with crosses transforming into flowers, would fit right in on the front of her dad's uniform, which she cites as her primary influence in their design. *Tear Drop*, by Masumi Kataoka, is a tiny teardrop-shaped basket, knotted out of human hair. Intended to be worn over the heart, it is weightless and nearly invisible.

The most effective and simplest of the pieces that mock war is Florian Landstaetter's *Fried Freedom* mass-produced button. There is nothing sentimental here, or in William Clarke's *Police State Medal* (a holdover from an earlier war) and his *Operation Enduring Fiefdom*, a collaboration with Diane Kuhn. This is an explicit military-style medal, which incorporates bits of anti-militaristic visual language.

F-117 Heart by Christopher Rizzo is a handheld presentation medal, not a badge, milled out of solid titanium. The choice of titanium as a material reminds us that some medals are materially linked to weapons, like the Victoria Crosses that were cast from Russian cannon captured in the Crimea.

4 Peace, by Mike & Maaike, a team of designers who approached the problem of the medal as a design challenge, abstracts the old reliable nuclear disarmament and peace sign into its four negative shapes. Each of these pieces can be worn independently or as a group. The four sections fit back into the presentation block, evoking the form of primary-shape puzzles given to babies.

Heidi BigKnife's *Medal of Dishonor* appears to have been inspired by David Smith's medallions of the same title, but has more to do with the American medal to which both refer: the Congressional Medal of Honor. Like Smith's dense allegories, BigKnife's image appropriates the mythology of war to turn it back on itself. Minerva, presented (though not exactly represented) in skeletal form, is the goddess who adorns America's highest award for military bravery. As the goddess of both soldiers and goldsmiths, she represents something they share, about which neither is exactly proud: she is the patroness of craft. BigKnife asks, "how can war coexist with wisdom in the world?" As this exhibition demonstrates, not with all kinds of wisdom, but with craft, war finds both friends and critics, as beautiful as serpents and as cunning as doves.

Tim Porges is a writer and librarian who lives in Oakland, California.

clockwise from lower left
William Clark and Diane Kuhn
Operation Enduring Fiefdom, 2003
red bronze, 14k gold wire, yellow brass, ribbon
5 x 2"

Heidi BigKnife
Medal of Dishonor, 2003
copper, Plexiglas, photo, velvet, sterling silver, text on vellum
7 x 3"

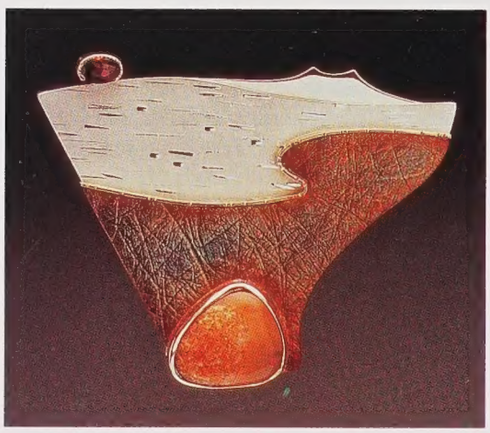
Florian Ladstaetter
Fried Freedom (badges), 2003
plastic, paper, nickel
diameter 2 1/2"

Autumn Dawn Griffiths
Wars of Peace, 2003
sterling silver
1 1/4 x 4 1/4"

"JOAN TENENBAUM"

STONINGTON GALLERY, SEATTLE
NOVEMBER 6–DECEMBER 31, 2003

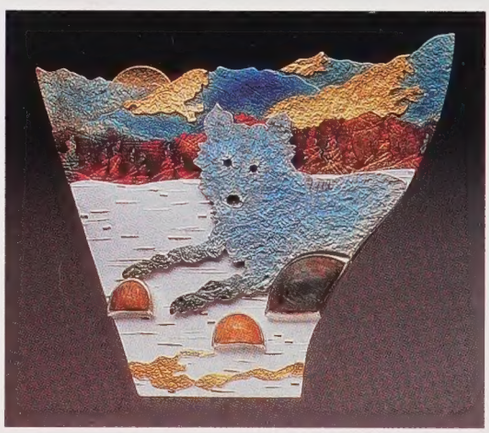
by MATTHEW KANGAS



Joan Tenenbaum is an artist whose recent work alludes to Native American cultures of the Far North but, unlike some other non-Native Americans, does not make art that attempts to simulate Native American forms. This is significant because recent controversies and discussions among critics and scholars of Native American art in the Pacific Northwest have revolved around the role non-Native Americans have played. Many of these artists have helped preserve or revive certain ethnic craft traditions, but some have been accused of expropriating such forms for their own gain without adequately clarifying their non-Native American status.

In Tenenbaum's case, the distinction is clear. She is a bit like Gauguin in Tahiti: admiring of local customs but completely in control of her own modernist imagery, unique jewelry construction methods, and symbolic artistic vision. Tenenbaum's brooches, necklaces, and rings could never be confused with Native American art, but her knowledge of such traditions is deep. She is the author of *Dena'ina Sukdu'a: Traditional Stories of the Tanaina Athabaskans*.

Tenenbaum has concentrated full-time on her jewelry since 1982, and moved to Brinnon, Washington, on the Olympic Peninsula in 1990. The pieces at Stonington Gallery were an impressive array that combined abstract and pictorial images using layered metal techniques, semi-precious stones, and, in a few cases, fossilized ivory.



Moose Momma has a mother moose at its top in textured and engraved sterling silver overlooking a newborn offspring executed in copper. At its base is a small piece of moose antler. *Wolf in Black Spruce III* is more detailed, with a blue wolf seated before a background of a spruce forest, mountain range, and setting sun. These tiny narratives draw in the viewer.

The grandeur of the Arctic landscape (where Dr. Tenenbaum did field work that led to the first grammar of the Tanaina Athabaskan language) is compressed into highly abstracted images in the "Tundra, Sky and Wind and Delta View" series. *Tundra, Sky and Wind IV* has irregular edges surrounding its three separate parts of silver (tundra), copper (land), and gold-set ivory (a rock). Angular scratching in the stained copper may signify the wind. In *Delta View II*, a meandering river of oxidized silver is surrounded by banks of gold-and-silver layered *mokume gane* with a small boulder opal at its base, perhaps the river's symbolic source.

In *Caribou Crossing II*, the antlered head of a caribou peeks out from one edge of the triangular brooch with silvered "water" below and a copper "sky" and mountain range above. Tenenbaum is drawing attention here to endangered species as well as honoring the fragile ecological balance of these landscape settings.

Like *Delta View II*, *Tidelands Brooch V* and *Tidelands Peninsula* are more highly abstracted than the animal narratives. One small ruby and one sapphire are set at the base of *Tidelands Peninsula*, and three separate sections of metal may symbolize the different tidal phases of the twenty-four-hour day, each exposing a different colored area of the shifting sands and water. Aspects of the bimetal layering suggest ovals and circles similar to water-pocked driftwood. In *Tidelands Brooch V*, the contrast between the smooth, brushed silver and the colorful *mokume gane* area is also more distinct, and the gems are larger. A single line of gold descends down the middle of each piece.

The slight dotting of the silver in *Tidelands Brooch V* is echoed to greater pictorial effect in a spectacular necklace with a triple pearl strand, *Birch Forest Necklace II*. The pendant portion consists of three connected sections of curving silver that resemble the pitted and torn birch bark of a tree trunk. A single diamond (water drop?) is balanced by a deep green chrysoprase stone set in gold at its base in the center; this suggests a leaf, the living part of the tree.

Whatever her inspirations, Joan Tenenbaum has transformed them into stunning objects that use their technical excellence and ingenious compositions to suggest worlds beyond adornment, informed by environment, ecology, and the natural world of the Far North in all its vast beauty.

Matthew Kangas, frequent contributor to *Metalsmith*, is a prolific Seattle-based art critic and curator.

clockwise from top right

Tidelands Brooch V, 2003
sterling silver, 14k gold, copper-and-sterling-silver *mokume gane*, garnet, sapphire
1 1/2 x 1 7/8 x 1/2"
Photo: Doug Yaple

Wolf in Black Spruce III, 2000
sterling silver, 22k gold, sterling silver bi-metal, copper, fossilized steller sea cow bone, fossilized mammoth, and walrus ivory
2 1/2 x 3 x 1/2"
Photo: Doug Yaple

Tundra, Sky and Wind IV, 1999
sterling silver, 14k gold, copper, fossil ivory, spinel
2 x 2 1/2 x 1/2"
Photo: Doug Yaple

"BIG: JEWELLERY FROM THE 1970S AND 1980S"

HARBOURFRONT ART CENTRE, TORONTO
NOVEMBER 7–DECEMBER 31, 2003

by BARBARA ISHERWOOD

My first thought upon viewing "BIG" was, "They're not kidding!" Many pieces in this delightful show of Canadian jewelry from the 1970s and 1980s seem positively massive compared to the more discreetly sized work prevalent today. Curators Jean Johnson and Van McKenzie sensitively arranged pieces according to visual themes, and included work by non-Canadians to represent the international origins of the New Jewelry movement.

Sandra Noble Goss's *Red Pendant* sets a circular theme for the first display case. A large copper disc with a square patinated brass center is suspended on raw silk that accentuates the work's rugged appeal. A brooch by American Charon Kransen combines a round painterly element with wood and wire, to create a Rauschenberg-ish assemblage. Charles Lewton-Brain's gigantic industrial-flavored bracelet of pierced brass is accentuated by rubber and Colorcore discs and knobs. Sized at the limits of wearability, this piece leads to the observation that the objects in "BIG" came from the collections of artists themselves, from fellow artists, and from craft dealers and curators. Selling those outside the inner circle on experimental body art is a tough job, so it's a good thing we support our own!

British artist Susanna Heron's fabulous *Wearable*, part of a grouping united by primary colors, belongs to Canadian jewelry innovator Kai Chan, also represented in this show. You'd need Chan's sense of flair to sport Heron's large black circle of woven cotton spewing a long tangerine train. *Lunch at the Ritz*, a brooch by David McAleese and Alison Wiggins, is a colorful Dagwood-length sandwich of jet, red vitriolite, turquoise, and 14k gold. Dutch artist Herman Hermsen's *Reitveld Bracelet* is a substantial aluminum cuff in the De Stijl colors of red, yellow, black, and blue.

Architectural lines predominate in Jackie Anderson's *Temple of Poseidon* bracelet, which could be mistaken for a miniature sculpture, complete with columns and sea creatures emblazoned on the "floor." Andrew Goss displays his characteristic wit in *Diamond Bracelet*, a large brass and sterling piece that is diamond in shape only. Anne Barros was still finding her artistic voice in 1982, when her streamlined *Athena* pendant was created, but already the influence of modernism that has since typified her work is apparent.

Organic forms link several captivating pieces, including Dutch artist Lam De Wolf's enormous *Bracelet*, a circle of pastel painted paper segments, from which descends a cascade of cords and painted sticks. Louis Tortell's bracelet of hammered steel juxtaposed with mottled silk is evidence of a subtler aesthetic, yet betrays the 1980s predilection for non-precious materials.

Akira Ikegama's streamlined sterling and gold pin, enlivened by a row of plastic beads, is part of a grouping characterized by geometric shapes and alternative materials. A hot pink and orange Plexiglas and sterling bracelet reveals another side of Wendy Shingler, whose current work has a softer feel. McAleese and Wiggin's titanium *Rocket Pin* shows fine handling of a material much used and abused in the 1980s. In his clever *Neckpiece with Removable Pendant*, Greg Merrall combines sterling, acrylic, and colored adhesive for an updated Op Art feel. Alan and Reeve Perkin's sterling and enamel necklace, from 1974, is one of the earliest pieces in the show. Its 1960s aesthetic provides a precedent for the geometric form that surfaces in much work of the 1980s.

Witty use of non-precious material was prevalent in the New Jewelry movement. Martha Glenny's *Entry Charm* bracelet preserves entry tickets kept as souvenirs of fun times. Kai Chan's *Breast Plate* is indeed a large red "plate" of painted cardboard. Appropriately, German New Jewelry icon Otto Künzli's found object pin is a mounted postcard featuring "before and after" pictures of a lobster from Canada's east coast!

Feathers and tendrils linked Anne Barros's streamlined *Athena Now*, Sandra Goss's rather clunky Art Nouveau-inspired peacock feather pendant, and an oversize pin by Don Stuart that resembles an abstract angel with a citrine for a head and a flowing wire skirt.

Line defines works by Israel's Esther Noble, U.K. artist Cathy Harris and Canadian Ken Vickerson. Noble's pin of sterling and colored beads is almost a foot long, yet still looks elegant. Earrings, rings, and a brooch in acrylic and silver by Harris are the epitome of 1980s experimentation: large, difficult to wear, but damn fun to look at. Vickerson's sprightly patinated brass hair sticks are a timeless delight, a fine study in balance that could have been made yesterday.

Historical exhibitions of Canadian jewelry are rare. "BIG" demonstrates that Canadian jewelry artists were on par with their international colleagues during a period of great change and excitement. Perhaps a follow-up show will look at how we stack up today.

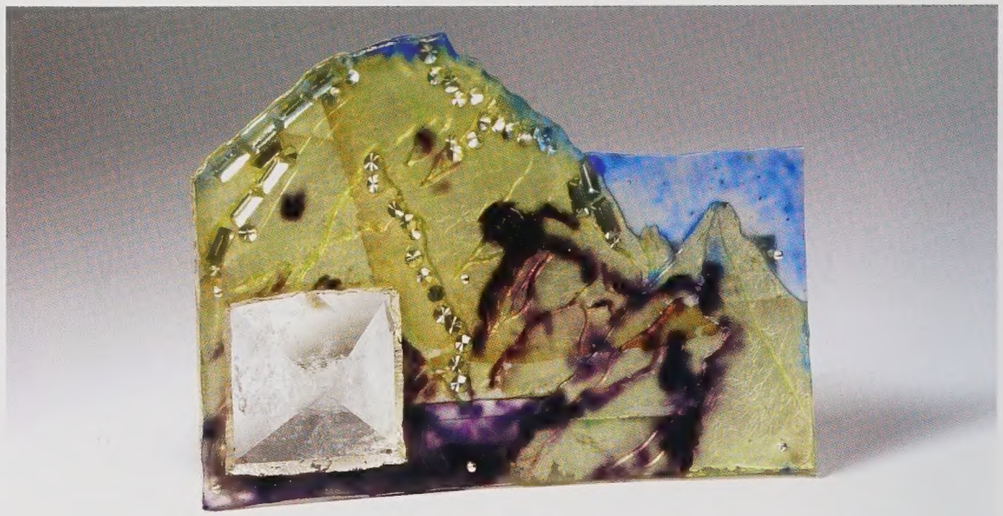
Barbara Isherwood is a Toronto-based writer on visual arts and craft.

clockwise from top left
Charles Lewton-Brain
Turned Bracelet, 1987
brass, Colorcore, rubber
1 3/4 x 6"

Jackie Anderson
Temple of Poseidon (bracelet), 1989
sterling, copper, pearl, acrylic, linoleum
4 x 2 3/8 x 1 1/4"

Ken Vickerson
Hair Sticks, 1989
patinated brass
8 1/2 x 2 x 1/4"

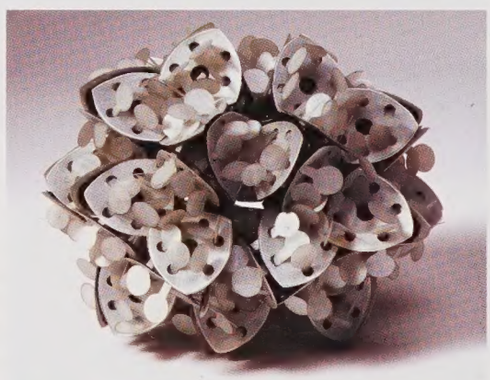
Martha Glenny
Entry Charm (bracelet), 1987
laminated paper, sterling
diameter 6 7/8"



"ICE"

SIENNA@HELLER, NEW YORK CITY
DECEMBER 6–28, 2003

by TONI GREENBAUM



I trekked through a snowstorm, only to find more "ice" in New York City's meatpacking district at Heller Gallery's exhibition, which has been organized by Sienna Gallery of Lenox, Massachusetts. For eight years, Sienna Patti has been discreetly showing jewelry by both well-known and emerging artists, some of whom have had little or no exposure in the United States. For this particular exhibition, Sienna invited 15 international jewelers to create a piece on the theme of "ice." The elegant Heller Gallery, which specializes in contemporary glass, proved itself a most suitable venue; and the "frosty" adornments fit comfortably within this context. Although most of the 19 pieces shown are enticing, and several are truly outstanding, Bettina Speckner's and Petra Zimmermann's contributions, clearly, steal the show.

Bettina Speckner, a jeweler from Munich, studied with both Hermann Jünger and Otto Künzli. She uses photographic images, in particular, ferrotypes and photo-etching on zinc, as the basis for intensely personal brooches that recall the past while remaining firmly rooted in the present. Speckner enlists still lifes, portraits, and landscapes, chosen for their poignancy and mystery. Sometimes the images are clearly representational, while at other times they verge on the abstract, becoming vague and equivocal. When you view Speckner's work, you are drawn into gently secretive environments, magically imbued with both sadness and hope.

In order to add even more visual and emotional impact to her work, Speckner sometimes applies small stones at carefully selected points on both the front and back of each piece. The hidden side is often more complex than the visible—displaying not only gems but curvaceous piercing that is reminiscent of antique iron grillwork. The gemstones, usually black or raw diamonds, which further connote inner brilliance, harmonize completely with the gray tonalities of the photographs, leading one's eye to the most potent portions of the imagery, while simultaneously creating aesthetic balance.

Petra Zimmermann's jewelry, on the other hand, while also utilizing clever material and temporal juxtapositions, is full of wit and humor. She paints colorful images of fantastic creatures or exotic locales, taken from photographs, on the wet plastic resin, from which the brooch form has been cast. Faux jewels are embedded in the matrix, and gold or silver leaf is applied to the back. *Everest* is the show-stopper. It is a resonant combination of a flat, though expressionistic, pictorial surface and a powerful three-dimensional element—in this case a huge protuberant rock crystal. The piece is finished sculpturally, with a silver cage-like structure on the reverse that functions as a closure and fosters the illusion of "floating," when worn, by enabling the brooch to stand away from the body. Zimmermann's earlier work—chunky rings made from discarded vintage costume jewelry bits embedded in dental plastic—function as diminutive tactile sculptures, equally satisfying in or on the hand. Zimmermann's work is fresh and new. She has a unique vision, not previously seen in artist jewelry.

There are many other delightful pieces in "ICE." Barbara Seidenath's silver, enamel, and rock crystal ring is particularly noteworthy, as are Svenja John's brooches made from intersecting strips of polycarbonate that look like giant snowflakes. Sienna Gallery is a most welcome addition to the New York artist jewelry scene, if only briefly. Like Lola Brooks's tiny scatter pins of faceted stainless steel, gold, and champagne rose cut diamonds, the show is small, but it's a gem.

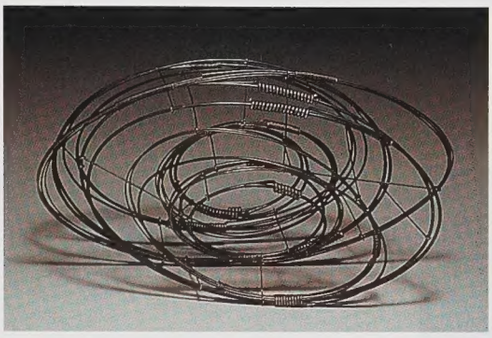
Toni Greenbaum is an art historian, specializing in twentieth- and twenty-first-century jewelry and metalwork.

clockwise from far left
Bettina Speckner
Brooch, 2003
ferrotype, silver, split raw diamonds
3 3/8 x 2 3/8 x 1/4"

Petra Zimmermann
Everest Brooch, 2003
silver, dental plastic, rock crystal, silver leaf
3 1/4 x 4 3/8 x 1 1/4"

Lola Brooks
Pendant, 2003
steel, 18k gold, champagne rose-cut diamonds
length 37"; pendant diameter 1"

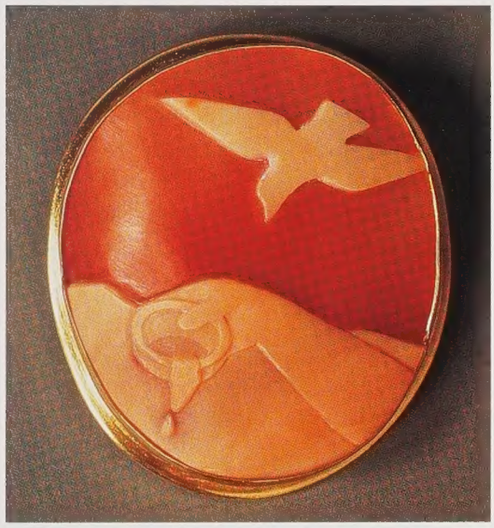
Svenja John
Brooch, 2003
polycarbonate, steel
2 3/4 x 4 1/4 x 3 3/8"



"CURRENT DIRECTIONS: STUDIO ART JEWELRY"

DELAWARE CENTER FOR THE CONTEMPORARY ARTS, WILMINGTON
DECEMBER 11, 2003–MARCH 7, 2004

by CHRISTINE TATE



"Current Directions: Studio Art Jewelry" features 29 works by 14 artists in various media. For this exhibition the jewel box-like E. Avery Draper Showcase gallery has been painted a sumptuous teal and the cases draped with satin in shades of teal and gold. The beautiful installation draws this somewhat aesthetically disparate collection together without overwhelming any of the pieces, or letting the larger works overshadow the more diminutive ones.

Guest curator Jan Baum, an established artist now teaching at Towson University, has gathered here a range of studio art pieces, nearly all of which seem wearable, if not universally practical. It's too soon to tell if they are representative of the best work of the first decade of the new century, but they are all conceptually inventive, expertly executed, and intriguing to contemplate. The exhibition reflects Baum's conviction that, "Studio art jewelry isn't just small-scale sculpture attached to the body...[but] has an intimate dialogue with the body and is about the body and the psyche. The jewelry object is transformative."

Juxtaposed in the first case are two pairs of cameos, *St. Sebastian* and *St. John the Baptist* by Randy Long, brooches of carved shell bezel set in 22k gold, and *Camouflaged: Creamy Beige Make-up* and *Cameo Compact: Porcelain Beige* by Sherry Simms, pendants of carved cosmetics set in embellished copper. All four are oval and similar in size and tonality, but they are very different in intention and effect. Long's work cites Italian Renaissance paintings in a conscious attempt to encourage other artists to explore religious themes and to promote the study and emulation of the lives of Roman Catholic saints. Simms's pendants, on the other hand, are representations of beautiful young women set in ornate frames and appear at first glance to be more traditional than Long's brooches. Closer inspection reveals that the highly-detailed cameos are carved in make-up, provoking questions about the "nature" and authenticity of feminine pulchritude, while the impermanence inherent in the medium challenges both the meaning of jewelry—as they seem far too fragile to wear—and undermines one of the purposes of the traditional cameo—to immortalize fleeting beauty. Here, both artists subtly exploit and subvert viewers' preconceptions about their shared medium.

Other artists represented in the exhibition seem less concerned with social commentary or activism than with technical explorations. Baum has characterized studio jewelers as "part-time engineers," and a number of pieces in this show reflect an interest in the structural and the kinetic. Kristine Bolhuis's *Mesh System Bracelet: Pentagonal* functions as a cuff constructed of interconnected silver bars that collapses into an egg-shaped sculpture for display off the wrist. Similarly, Donna D'Aquino's three steel *Wire Bracelets* are architectural structures that look like mobiles and are meant to be "hung on the walls as three-dimensional drawings floating in space" when not being worn.

Emiko Oye demands our attention with four bracelets, including *Showroom 007 from the Patent Pending Collection*, a boa-like accretion comprised mainly of plastic rings that affix tags to clothing and clear film strips printed with sayings like "Jewelry isn't art," and "uncomfortable." While Oye plumbs the powers of language, Yuyen Chang and Maumi Kataoka force us to confront our visceral responses. Chang's pieces in this show, from the "Orifice Series," are fabricated from copper but seem almost organic—like rubber emulating flesh. They don't represent specific anatomical features, but they do look disturbingly human in origin. Masumi Kataoka's medium *is* human in origin: hair. Though making jewelry out of human hair has a long history, usually commemorating a specific person and a very intimate connection, here the "donors" of the hair are not identified and its type is ambiguous. A set of three rings called *Holding Onto One's Jewels* calls up some unsettling associations.

Julia Turner and Maria Phillips, on the other hand, have transcribed organic forms into seductively beautiful metal shapes. Turner's silver *Pendant, 2001* resembles a delicate seed pod abstracted to perfection. Phillips's *Cambium* (the cells between a tree's wood and bark) neckpiece with two steel and gold pod-like pendants, is, according to the artist, an examination of "the relationship between the natural and the man made." The same could be said of Simms's cameos and Chang's orifices, but here the effect is much more subtle.

One piece that stands apart, both literally—on its own shallow shelf—and conceptually is Mary Donald's *365 Days: A Journal*, of which one month is included in this exhibition. The 30 cube-shaped acrylic rings are decorated with silver and photo transparencies, and while each has distinctive embellishment they still cohere as a group. The same may be said of this show as a whole; it is well worth seeing.

Christine Tate teaches art history at the Delaware College of Art and Design, where she also serves as Academic Studies Area Coordinator.

clockwise from lower left

Randy Long
St. John the Baptist Brooch, 2002
shell cameo set in 22k gold
2 3/16 x 1 3/4 x 1 3/16"

Sherry Simms
Cameo Compact: Porcelain Beige, 1999
copper, enamel paint, plaster, make-up
3 1/2 x 2 1/4 x 1/4"

Donna D'Aquino
Wire Bracelet #72, 2001
steel
5 1/4 x 9 x 4 1/2"

Masumi Kataoka
Holding Onto One's Jewels, 2003
24k gold, copper, enamel, human hair
1 x 2 x 1/2" each

LETTERS

TO THE EDITOR:

Greetings, I hope this message finds you in health and happiness.

I rarely write to the communicators of our jewelry world, but I cannot resist expressing myself to you about your article on Keith Lewis.

The world of metalsmiths is teeming with passionate and creative individuals willing to devote their entire life to the creation of art, art that inspires, that mystifies and intrigues, that enlivens the artist to aspire to greater heights and the receiver of art to be thrilled and uplifted by the creative ingenuity of this art.

Art as social commentary is no more art than politics is art. A roughly hewn piece of pricks and pussies has no redeeming value whatsoever. It holds no craftsmanship, it holds no thoughtful engineering, no originality, no beauty, no energy to lift the individual to something greater. It is not an expression of the Spirit of humans, but an expression of the base animal condition; its only attribute is shock value.

I would think that your pages should give merit and support to those of talent, not those of elementary skills and no imagination. This kind of article only serves to decay and undermine the very group that makes your magazine viable.

Zoltan David
Austin, TX

TO THE EDITOR:

Unfortunately the Winter 2004 issue of your magazine ended up in the hands of my niece's children before my husband and I had a chance to look at it. So you can imagine my anger.

Mr. Lewis's pornographic creations definitely should not have been displayed without some kind of warning on the cover.

Mary Westman
Mojave, CA

EDITOR'S RESPONSE:

We appreciate the concerns expressed about Matthew Kangas's article "Keith Lewis: From Propagandist to Humanist" in the winter 2004 issue. While we realize that the explicit sexual content of Lewis's jewelry has offended some readers, we nonetheless feel that his work deserved to be critically assessed in the magazine. As the publication of record in the field, *Metalsmith* is committed to presenting the full range of important work created in jewelry and metals, from the traditional to the more cutting-edge. It should be noted that within this same issue we also featured the spectacular preservationist work of the Tiffany & Co. conservation lab, a book on custom folding knives, and an exhibition review on traditional Middle Eastern jewelry. It is this mix that makes the metals field, and by extension the magazine, so exciting and rich. The human body (implicitly or explicitly) has been a common subject for jewelers throughout the centuries. Lewis's jewelry with images of genitalia is admittedly at the extreme end of this spectrum, but he is a well-respected educator and artist whose work is based on serious study and personal commitment. Whether or not the work ultimately elevates or debases his human subject is certainly up for debate, and this was one of the points raised by Kangas in the article. Likewise, the quality of Lewis's craftsmanship, which many find exceptional, is open for discussion as is to be expected in a field filled with consummate craftspeople.

That said, SNAG and *Metalsmith* sincerely apologize to any readers who were disturbed by the content of this article. Since this was the magazine's first, and likely only, article with such explicit imagery, we had not considered issuing a warning of sexual content as has been suggested. In retrospect, perhaps this would have been a good idea and could have prevented the magazine from falling into the wrong hands.

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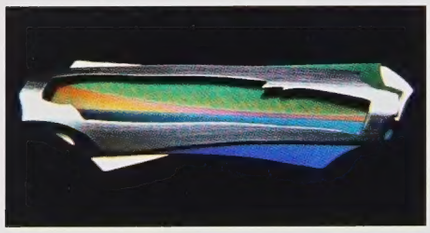
www.snagmetalsmith.org

by Dana Singer



top to bottom
The SNAG exhibit booth at 2004 American Gem Trade Association show in Tucson

Alan Revere
Fold Ring, 2003
18k yellow and rose gold, platinum, diamonds
2 3/8 x 1 x 3/4"
Photo: Barry Blau

Bill Seeley
Brooch, ca. 1982
rivet fabricated, sterling silver, anodized niobium
length 3"

SNAG Thanks Sponsors

SNAG heartily thanks 3M, Inc., the official corporate sponsor of our St. Petersburg, Florida, conference held March 17-21, 2004. We also thank our Gold Level Sponsors, Rio Grande, Otto Frei, Hoover & Strong, and the American Craft Council for their ongoing support of our annual conferences. Last but not least, we thank the Tampa/St. Petersburg Convention Services Bureau for underwriting the conference and workshop brochures, buses for the Gulf Coast Art Museum tour, and an expanded advertising campaign.

SNAG Receives $10,000 Grant for High School Outreach

SNAG was awarded a $10,000 two-year grant from an anonymous donor to underwrite the expansion of our High School Outreach Grants Program. With this money, beginning with the 2004 grant cycle, SNAG has doubled the awards made to both the high schools and the artists teaching.

Donations to the Metal Museum and Archives of American Art

SNAG has donated the archival portion of our Audio Visual Rental Library to the new library being built at the Metal Museum in Memphis (formerly the National Ornamental Metal Museum). SNAG's donation of more than 17,000 slides forms the core of a permanent educational and research collection in a venue nationally recognized for its service to the metals field.

SNAG has also donated its paper archives to the Archives of American Art (AAA) of the Smithsonian Institution. The documents encompass the history of SNAG from its inception in 1969 and the activities of its members over the years. The facility is open to all researchers, and the materials will be catalogued by AAA's professional staff. AAA is also coordinating the Laitman Project, which conducts oral histories of more than 100 craftspeople, including Irena Brynner, Arline Fisch, William Harper, Brent Kington, John Marshall, Mary Ann Scherr, June Schwarcz, and Ramona Solberg. Both donations will be completed by the SNAG conference.

SNAG Booths at Tucson Gem Show

SNAG members Mary Chuduk and Cindy Sumner coordinated a team of volunteers for the SNAG booth at the American Gem Trade Association show in February, while executive director Dana Singer staffed the SNAG booth at Rio Grande's Catalog in Motion. SNAG greeted many thousands of metalsmiths, and distributed complimentary copies of *Metalsmith*, brochures, and other materials.

SNAG and *Metalsmith* Co-sponsors at MJSA Expo-New York

SNAG and *Metalsmith* co-sponsored educational seminars by Alan Revere of the Revere Academy and Bill Seeley of Reactive Metals Studio, at the Manufacturing Jewelers and Suppliers of America Expo-NY in March. Alan Revere presented "Bench Tips for Jewelers" based on his upcoming book, *101 Bench Tips*, and Bill Seeley prepared a presentation on "Niobium: A Primer in the Semi-Precious," ending with a live demonstration of the anodizing process for niobium jewelry.

Dana Singer is executive director of the Society of North American Goldsmiths.

Moving Metal

by Adolf Steines

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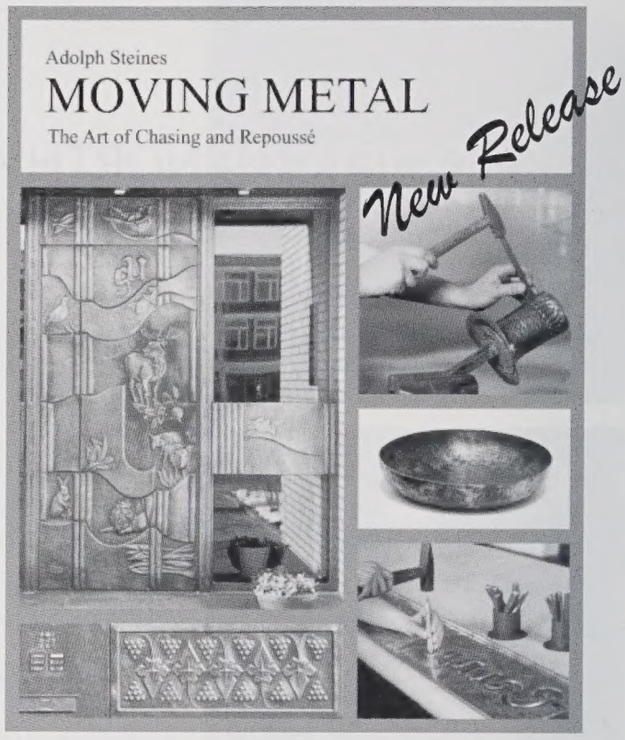

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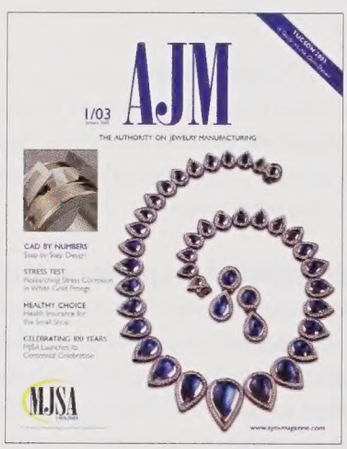

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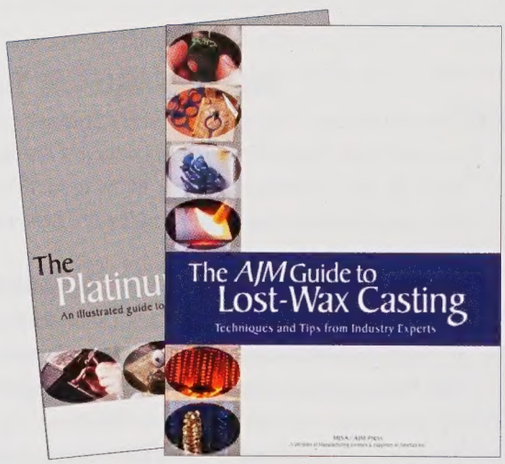

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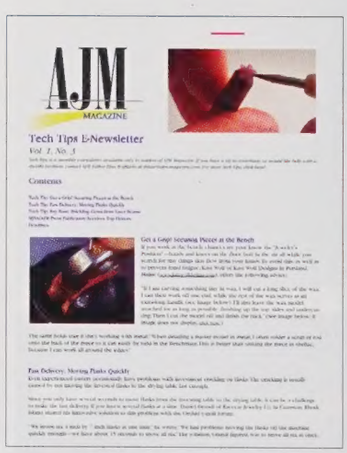

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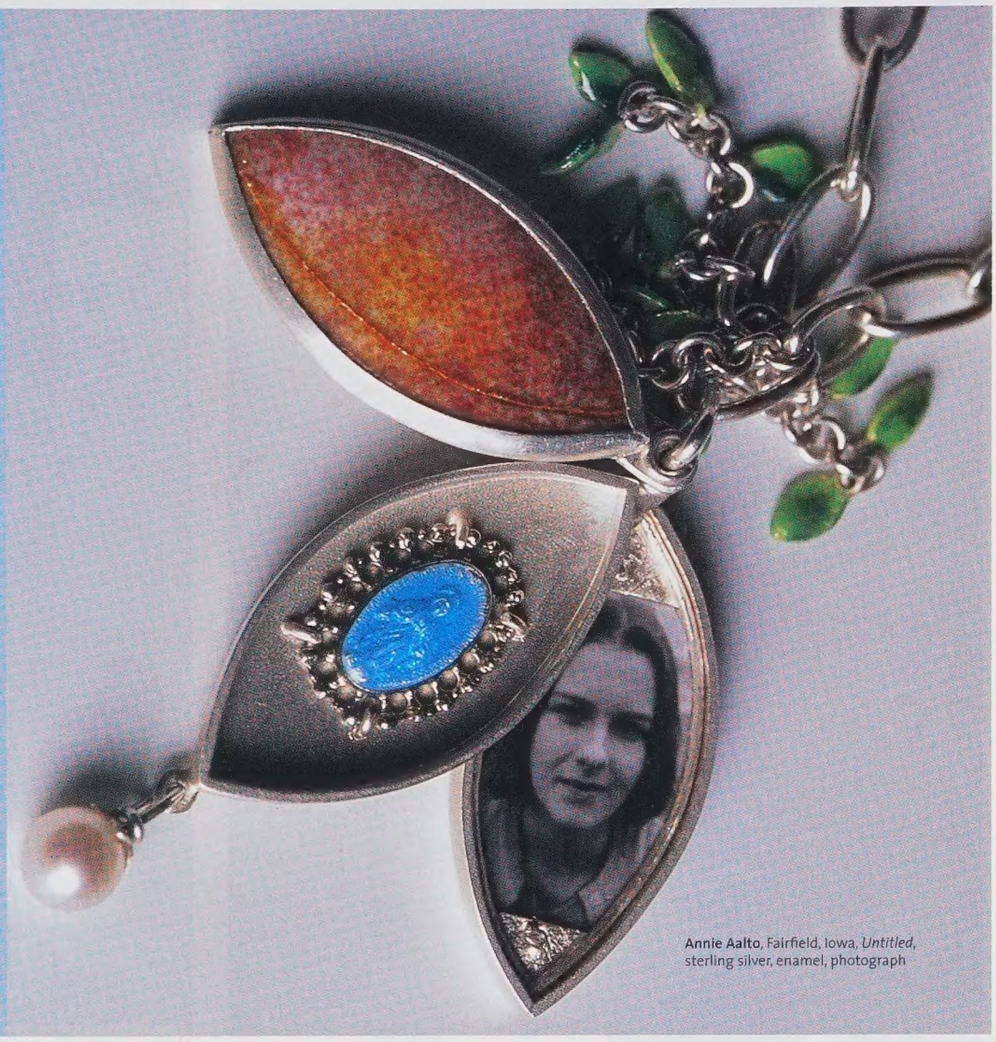

Annie Aalto, Fairfield, Iowa, *Untitled*, sterling silver, enamel, photograph

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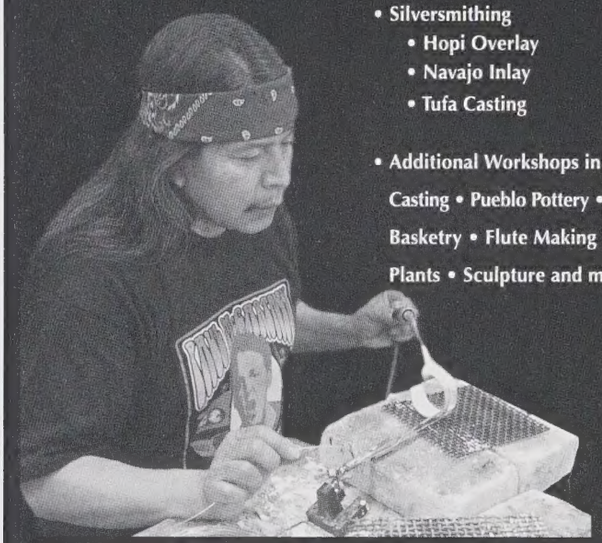

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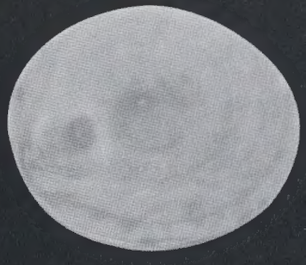

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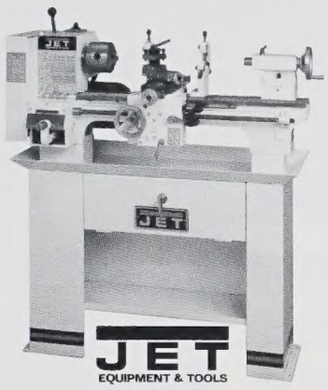

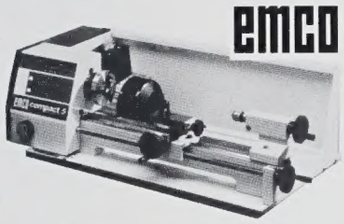

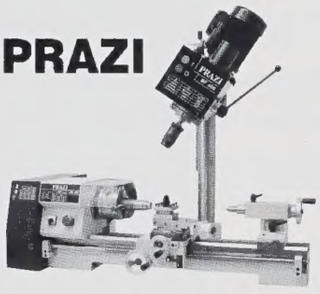

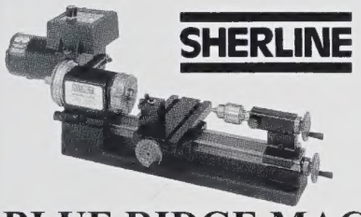

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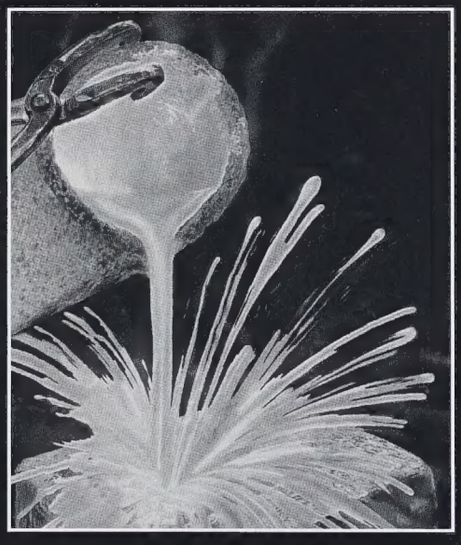

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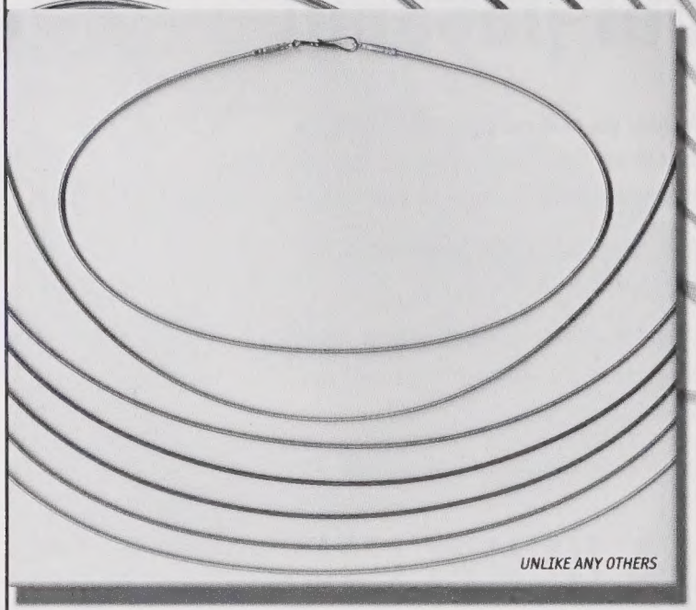

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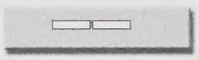
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Biba Schutz
Ceremonial Pendant, 1998
copper, sterling, fine silver
$4\ 3/4 \times 1\ 1/4 \times 1\ 1/2$"
Photo: Ron Boszko

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cover: Manfred Bischoff
Brothers (brooch), 2001
Courtesy Joseph Kosuth and
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Helen Shirk
Sustaining Sprit XXVII, 2000
copper, patina, colored pencils
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Whitney Boin
Post Engagement Ring, 1996
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platinum, 18k
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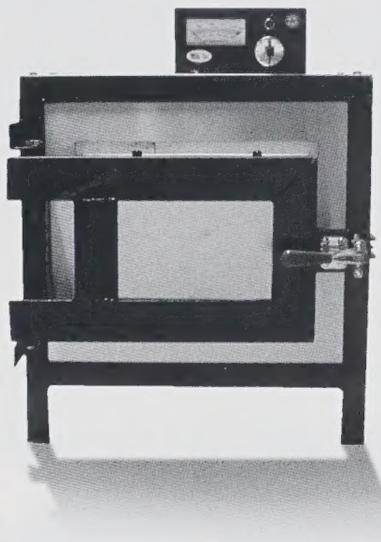

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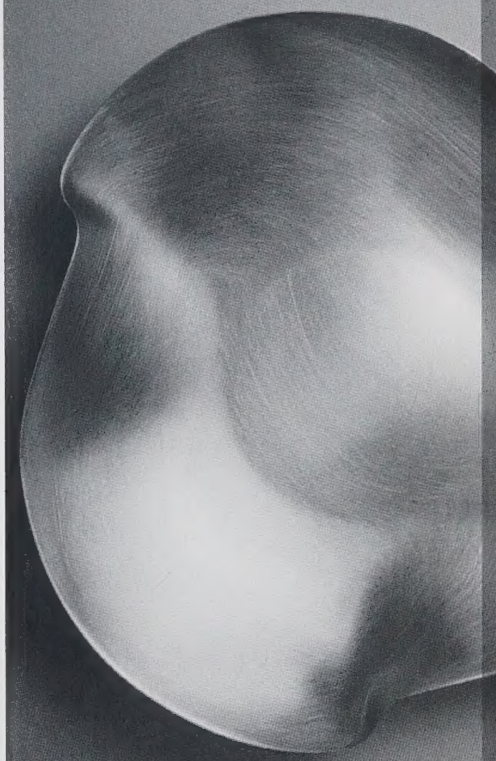

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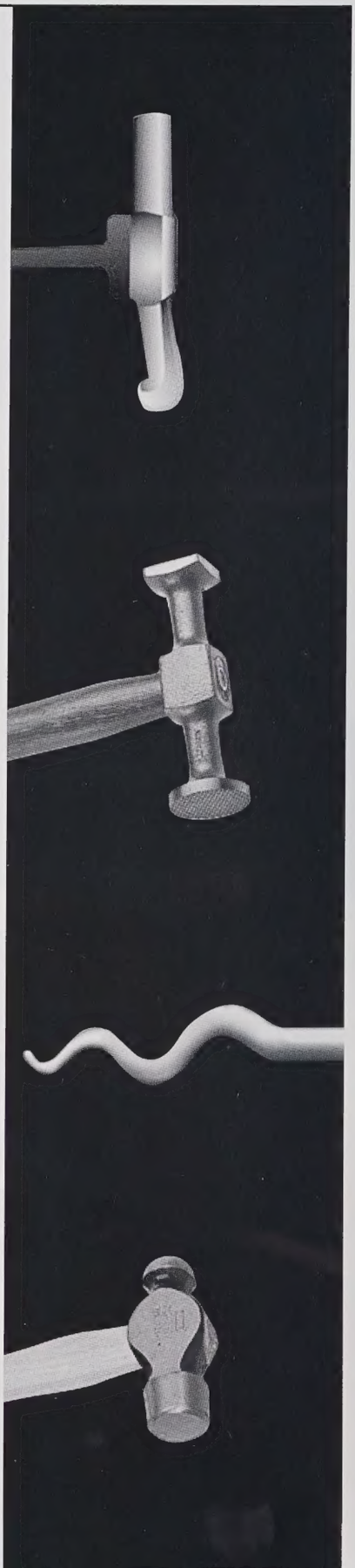

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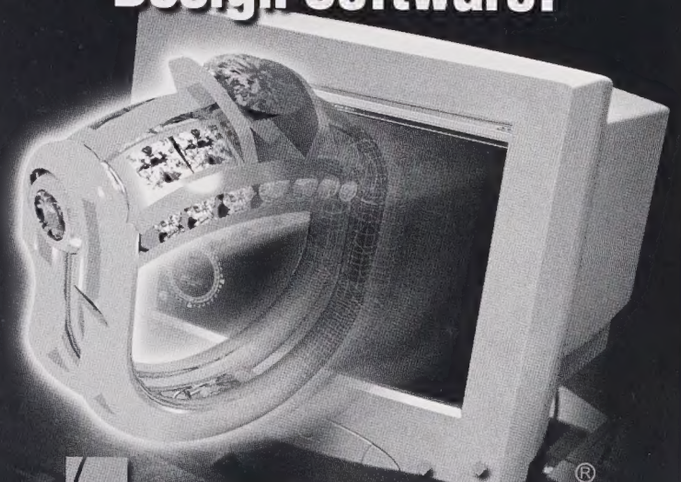

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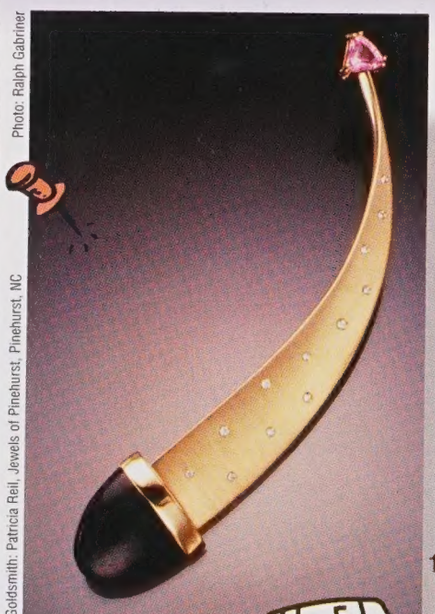

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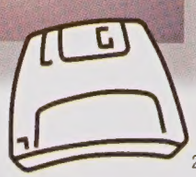

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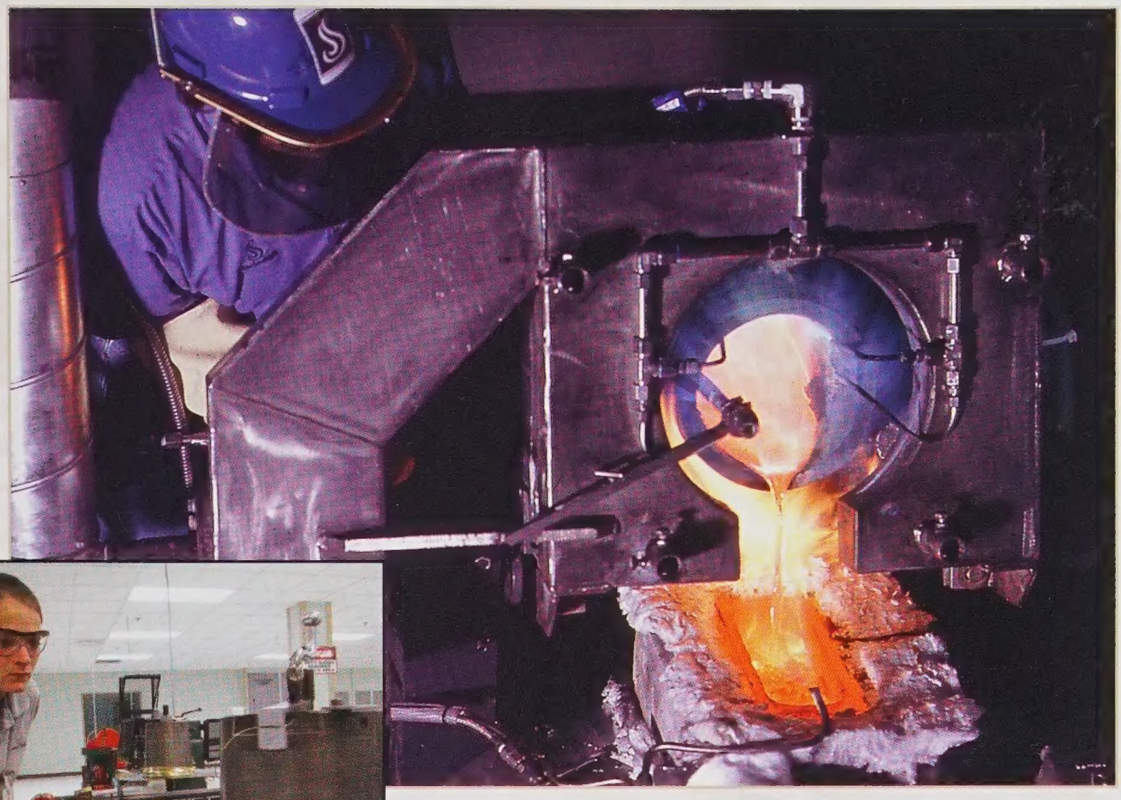

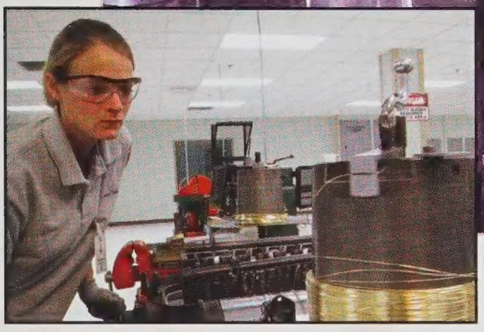

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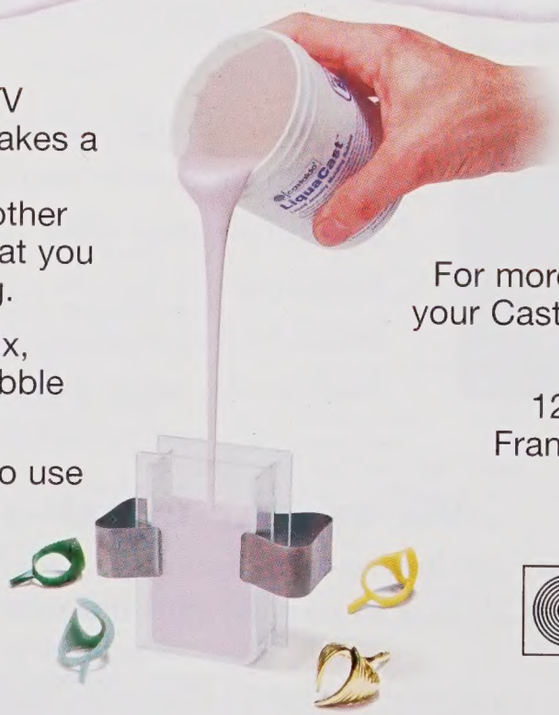

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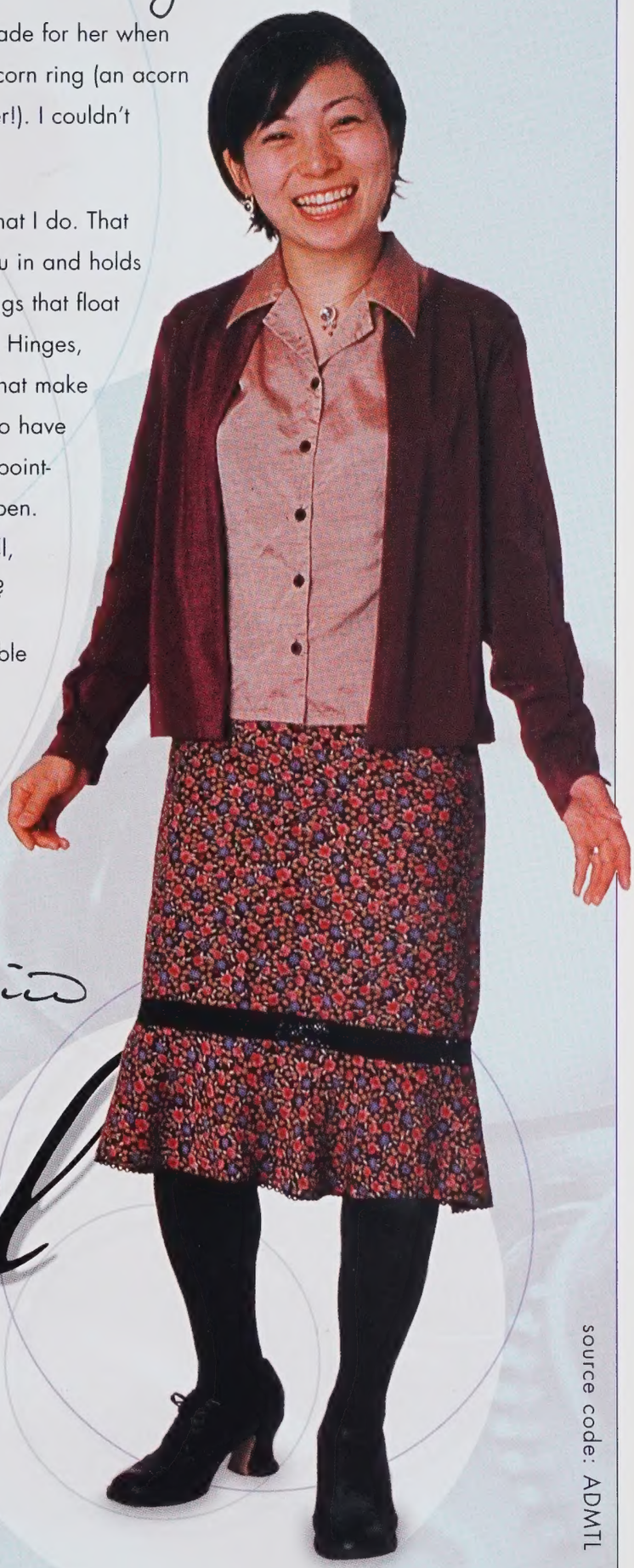
My grandmother recently pulled out a box of things I made for her when I was little. I found this funny acorn ring (an acorn taped onto a band of scrap paper!). I couldn't believe she still had it!

I really like the permanence of what I do. That something I make today draws you in and holds you for a long, long time. I like things that float and move around . . . I can't help it! Hinges, doors waiting to be opened, things that make little shaking noises—I want my work to have a surprise function like that. I get so disappointed when I see a door in a toy that doesn't open. You need to be able to "fizzle" around. After all, where's the fun if you can't play with your jewelry?

I have so many scribbles in my sketchbook—pieces of playable art waiting to be made and named. I can't bear the thought of parting with them—I put so much time and soul into each one. But I know my great-grandchildren will cherish them forever. As for that acorn ring, grandmother and I joked that it will be worth a million yen when I'm rich & famous someday.

Chihiro Makio



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